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ORIGINAL LECTURES.

BRIGHT'S DISEASE AND ITS TREATMENT.

A Clinical Lecture delivered at the Philadelphia Hospital.

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GENTLEMEN: I introduce this patient because her case is a typical one of that class of diseases to which the name of Bright is universally applied. I do not propose to discuss the question whether the widely varying appearances of the kidneys of this group of diseases represent different stages of one process or independent processes from the beginning, but intend to devote a portion of the time at my disposal to the consideration of certain symptoms common to them all, and all dependent upon the imperfect excretion of urine.

Until quite recently it has been supposed that the most poisonous ingredient of the urine is the urea, and, consequently, that the grave nervous disturbances following the diminution or suppression of the urinary excretion were due to the accumulation of urea in the blood. The term uræmia was introduced to express this view of the pathogeny of kidney diseases and was universally adopted. It is now known to be a misnomer, but it is not the only medical term that has lost its etymological significance, and will doubtless continue to be employed to indicate an assemblage of symptoms dependent upon the imperfect excretion of urine.

The adjective "uræmic" is commonly applied to a group of symptoms of the gravest character calling for the promptest application of the most powerful remedies. Of these symptoms the most prominent are coma, convulsions, and delirium. I am not prepared to advocate the abandonment of the term uræmia and its cognate adjective, although, as you will presently see, the term "urinæmia" suggested by Bouchard is much more accurate, but I would call attention to the fact, often overlooked, that it is equally applicable to a group of less conspicuous symptoms which are often the precursors of those to which I have just alluded. These slighter manifestations of uræmia are of the greatest practical importance, inasmuch as they indicate a degree of poisoning which is overcome with comparative ease.

I will mention some of these precursory symptoms to which attention should always be given by those in charge of cases of Bright's disease. One of the most striking of them is a frequent desire to micturate. This symptom has been called by Dieulafoy, of Paris, *Pollakiuria*, which is a very different thing from polyuria. In the latter the amount of the twenty-four hours' urine is increased; in the former it is not. *Pollakiuria* signifies that a normal or subnormal amount of urine requires for its expulsion an abnormal number of contractions of the bladder. This is often one of the earliest symptoms of Bright's disease, but sometimes it does not make its appear-

ance until a late stage and is then one of the precursors of more marked symptoms of systemic poisoning. It is due to an irritation of the bladder by a urine of abnormal composition. Many years ago it was recommended by most writers upon the subject of gonorrhœa, and perhaps is still by some, that, in that disease, the urine should be diluted by the copious ingestion of water so as to lessen its specific gravity and render it less irritating to the inflamed parts. The theory on which this treatment is based is now known to be false, for the urine that is least irritating to the genito-urinary tract is one of which the specific gravity approaches that of the blood serum. A urine of low specific gravity irritates the bladder, and this lessened density is undoubtedly one of the causes of the pollakiuria of Bright's disease.

Other symptoms of uræmic poisoning of minor grade are noises in the ears, itching of various parts of the skin, urticaria and other skin eruptions, and vasomotor disturbances, usually in the direction of vascular spasm. This may have its seat in the pulmonary vessels and give rise to great dyspnoea, closely resembling that of a typical attack of asthma, or it may manifest itself in the external parts, especially in the upper extremity. The hand, in such attacks, may become as pale and as cold as that of a corpse. This condition of "local asphyxia" which, by the way, is not peculiar to Bright's disease, was first described by Raynaud, and is, therefore, known as Raynaud's disease. It would be more correct to call it Raynaud's symptom, as its pathogeny is various. Finally, the symptom which probably most surely indicates an approaching outbreak of violent uræmic phenomena, is *myosis*—contraction of the pupils. It is one of the earliest symptoms of experimental uræmia, making its appearance when from ten to fifteen cubic centimetres of urine have been injected into the veins of a rabbit.

When, therefore, a patient with Bright's disease complains of noises in the ears, of itching of the skin, of frequent desire to urinate while the urine is not increased in quantity and free from mucus and pus, you should regard him not as liable to become affected with, but as already the subject of, uræmia. If, in addition, you observe that the pupils are abnormally contracted, you should employ active measures to prevent the outbreak of more violent and dangerous symptoms of poisoning.

I have criticised the term uræmia on the ground that urea is not the most poisonous ingredient of the urine. This is a weak statement of the fact, for instead of being the most, it is the least toxic of all the urinary constituents. The following simple experiment proves that there are substances in urine much more poisonous than urea: Ten grammes of urea were injected beneath the skin of a guinea-pig, causing the death of the animal in two hours and seventeen minutes. Beneath the skin of a second animal were injected one hundred and twenty-eight cubic centimetres of urine containing the same amount of urea. This animal died in twenty-one minutes.

The amount of urea present in the blood in cases of Bright's disease is not believed, by those who have studied the question experimentally, to be sufficient to give rise to any poisonous symptoms. Urea is a powerful diuretic and its accumulation in the blood tends to increase the secretion of urine, so that, paradoxical as it may seem, the less urea there is in the blood, the greater is the danger of becoming uræmic. In fact, Professor Bouchard, of Paris, taking advantage of its well-known diuretic properties, has actually treated a case of uræmia with hypodermatic injections of urea.

The complex of symptoms known as uræmic is the result of poisoning not by one but by numerous substances. Leaving urea out of the question, the urine, according to Bouchard, contains six distinct poisons: 1. A narcotic, concerning which nothing further is known than that it is organic and soluble in alcohol. 2. An organic substance which possesses a strong sialogogue action. 3 and 4. Two convulsives, one of which is organic and the other mineral. 5. A poison which contracts the pupil, and 6. A poison which lowers the temperature.

When urine is injected into the veins of an animal convulsions do not occur because the narcotic poison kills it before the convulsives have time to act. These poisons have not all been isolated, but there is no question that the mineral convulsive is potassium and that the coloring matters are decidedly toxic. The former statement is proved directly by the injection of potassium, and the latter indirectly by the fact that urine decolorized with animal charcoal is much less toxic than urine that has not been so treated.

Certain alkaloidal substances known as leucomaines are found in minute quantity in normal urine and have been supposed to be the cause of the symptoms known as uræmic. They are formed in the intestine through the agency of the microorganisms contained in that part of the digestive tract. They are excreted, in part, by the bowels. Another part is retained and destroyed in the liver, while the remainder passes that organ, enters the general circulation and is excreted by the kidneys. That these substances are highly toxic there can be no doubt, and in diseases of the intestinal canal, especially in enteric fever, they probably give rise to the symptoms of adynamia known as typhoid, but experiments tend to prove that, as a rule, their part in the production of uræmic symptoms is not a prominent one. For example, the symptoms of poisoning caused by double nephrectomy ensue too rapidly to be explained by the accumulation of these alkaloids.

I could mention further facts in proof of the statement that the process of uræmic poisoning is a very complex one, but those I have given you should be enough, if not to convince, at least to induce you to study this important subject for yourselves.

I will, therefore, devote the remainder of the hour to some general suggestions concerning the treatment of Bright's disease.

In the first place, you should dismiss from your minds any idea of suppressing, or even diminishing, the albuminuria by drugs administered with the object of constricting the renal vessels, or of so modifying the albumin as to make its filtration through the glomerular vessels difficult or impossible. Such effects have been ascribed to tannic and nitric acids, but they have been

weighed in the balance and found wanting. The treatment of Bright's disease must, therefore, for the most part, be dietetic and hygienic.

Before mentioning any particular articles of diet that exercise an injurious effect in Bright's disease, it should be stated that in the urine of a certain proportion of perfectly healthy persons after a hearty meal—*i. e.*, a meal containing an abundance of nitrogen, albumin may be found. It would appear, therefore, on *à priori* grounds, that albuminous substances should be administered sparingly, and clinical experience brings ample testimony in support of this inference. It may be laid down as a rule that eggs are to be discarded from the diet. Experiments on animals have proved that the quantity of albumin excreted with the urine is much greater than the amount of this substance injected into the veins—in one instance four times as much—and that the albuminuria thus excited is more or less persistent. It would seem that egg albumin to certain animals and to certain constitutions is a decided irritant to the kidneys. The same is true to some extent of meat, which should be administered sparingly, and preference given to white meats and fish, which contain less albumin than beef and mutton. Another objection to the use of albuminous substances is that they increase the quantity of urea in the blood, and whatever views may be held with reference to the production of so-called "uræmia," there is no doubt that the presence of urea in an albuminous solution increases the filtration of the albumin.

Cheese is another substance to be avoided. Fifty years ago (in 1839) Christison observed temporary albuminuria in persons who had eaten heartily of this substance.

It is sometimes argued that as albumin passes out of the system in large amount, this loss should be atoned for by the free ingestion of albuminous substances, but such an argument proceeds from ignorance of the facts of the case. In albuminuria of high degree the loss of albumin, when carefully estimated, is found to be remarkably small. It rarely amounts to more than a few tenths of one per cent., and it has been calculated by Senator that half a pound of meat contains enough albumin to cover the weekly loss of this substance in high degrees of albuminuria.

As regards fluids, alcoholic drinks should be entirely avoided, but when patients insist that they cannot do without such beverages, which is equivalent to saying that they will not, they may be advised, out of a variety of evils, to choose the least, which is claret. Its percentage of alcohol is small, and it contains tannin, which is still regarded by some as of medicinal value. Beers are considered more injurious than wines. The composition of wines is involved in some obscurity, but they certainly do not contain the salicylic acid and cocculus indicus which have been found in some beers.

Having mentioned some of the substances to be avoided in the diet of those afflicted with Bright's disease, it remains to be stated what things may be consumed, not only with impunity but with benefit. The main reliance should be upon milk. An exclusive milk diet is often talked about but seldom lived up to. The bulk of this liquid, which must be taken to supply the barest needs of the system, is so great as to overtax the average healthy stomach, to say nothing of the irritable stomach of Bright's disease. According to Voit, a

healthy adult prisoner, while idle, requires 85 grammes of albumin, 30 grammes of fat, and 300 grammes of hydrocarbons per diem, while two litres (about 3½ pints) of milk contain only from 68 to 70 grammes of albumin. The fat in this amount of milk will be twice as much as is necessary, and the hydrocarbons about one-third the necessary amount. If the digestion is good the milk may be given unskimmed, as the fat may supply the deficiency in hydrocarbons, but if, as is generally the case, it is bad, the milk must be skimmed and the deficit in hydrocarbons made up by the addition of bread, oat meal, corn meal, hominy, or rice. On such a diet the nutrition may be well maintained, especially if the patient does not take much exercise, and here let me insist on the important fact that a patient with Bright's disease should take little or no active exercise, for muscular activity by increasing arterial tension is always injurious. Passive exercise in the form of massage is all that should be indulged in. The functions of the skin may be maintained by occasional warm baths followed by vigorous friction, during which great care must be observed to avoid taking cold. The under-clothing should be of wool the year round.

The question of the climatic treatment of Bright's disease has not received the attention it deserves. Above all things the climate recommended should be dry. A warm is to be preferred to a cold climate, but a cold dry climate is better than one that is warm and moist. It is probable that the early detection of Bright's disease and the removal of the patient to a suitable climate will be followed by at least as good results as have attended similar procedures in cases of phthisis. Pye-Smith mentions the case of a young man who was anæmic and œdematous, with casts in his urine and increased vascular tension, who was completely cured by a residence of one winter in Egypt, the only additional treatment being flannel, diet, and chalybeates.

The drugs employed in the treatment of chronic Bright's disease are administered with the view of mitigating the severity of the secondary symptoms. Of these, the one universally present is anæmia, which may be so great as to cause serious difficulty in determining whether or not it is primary. For example, Fagge mentions a case of contracted kidney which was "set down," presumably by himself, as one of pernicious anæmia. The difficulty is enhanced by the fact that in high degrees of anæmia, owing to diminished blood pressure and malnutrition of the renal epithelium, a slight degree of albuminuria is frequently present. As to the degree of the anæmia of Bright's disease, that, of course, depends to a great extent upon the stage it has reached, although the anæmia in an early stage of cases that have been neglected may be greater than that of a later stage of cases which have received proper treatment. Chalybeates are, therefore, indicated from the start, a fact which was empirically ascertained long before the introduction of clinical examinations of the blood. There is no better preparation of iron in Bright's disease than the tincture of the chloride. Basham's mixture, which, besides this tincture, contains acetic acid and liquor ammoniæ acetatis, is an excellent preparation. The last-named drug is of value on account of its diaphoretic properties, and its administration has been a matter of routine at Guy's Hospital since the time of Addison.

Another diaphoretic has hardly fulfilled the expecta-

tions that were formed regarding it on its first introduction. I refer to jaborandi, and its alkaloid, pilocarpine. It is depressing in its action on the entire system, and is sure to interfere with the digestive functions. It should, therefore, be held in reserve for cases of rapidly progressing œdema, and then administered with care. It is best given hypodermatically, beginning with one-sixth of a grain of the nitrate of pilocarpine; next best by the mouth, in the form of the fluid extract. The infusion is very nauseating, and has not been prescribed by me for several years.

Purgatives are of great value in Bright's disease, and should be administered twice a week, even when the bowels are regular. The best cathartics are the salines, and of the salines there is none better than a mixture of magnesium sulphate and potassium bitartrate. A drachm of the former and half a drachm of the latter in lemon syrup and water is not unpalatable, and may be given every hour until several doses have been taken, or one single larger dose of the two may be given early in the morning in a glass of hot water. It is doubtful whether the saline and alkaline-saline waters so much employed in Germany in the treatment of Bright's disease possess any medicinal influence apart from their laxative properties. Mercurials should not be employed in the treatment of Bright's disease, as they are apt to induce salivation, and are besides contraindicated by the anæmia which is always present.

Another drug to be avoided, especially in that form of the disease associated with contracted kidney, is opium. Comparatively small doses of opium have caused narcotic poisoning in several instances. Intercurrent attacks of pain may, however, necessitate the use of this drug, but if morphia be used hypodermatically, it should always be combined with atropia. In acute Bright's disease this intolerance of opium is said not to exist, but it is hard to draw the line between acute and chronic. For instance, you may be called to attend a patient with an attack of acute Bright's disease, and this very attack may be engrafted upon a chronic process of which both yourself and the patient may be entirely ignorant.

The dyspnoea, which is often an alarming symptom of Bright's disease, is best combated with nitrite of amyl and nitroglycerine. The effect of the former is transient, that of the latter much more permanent. Great œdema of lower limbs and scrotum may be relieved by needle punctures, from which there will be a constant oozing of serum. These punctures may, however, be the starting-point of erysipelas or gangrene in late stages of the disease, and such complications are rapidly fatal.

The treatment of uræmic convulsions or coma, to be successful, must be vigorous. In case of violent clonic convulsions, venesection should be promptly resorted to, from ten to twenty ounces being abstracted from a vein. In case of coma a drastic or hydragogue purgative, such as elaterium or croton oil, should be administered, and of the two I prefer the latter. Two drops of croton oil in a little mucilage may rescue the patient from an apparently hopeless condition. The cardiac complications present the same indications as those of primary heart disease.

With the aid of the various measures above enumerated, life may often be prolonged for an indefinite period. Albumin and casts may be present for years in the urine of persons who present an appearance of robust health;

but it is scarcely necessary to say that such people have made a study of living under difficulties, and are aware that the slightest indiscretion may prove fatal.

ORIGINAL ARTICLES.

THE COTTAGE PLAN OF TREATING CONSUMPTION IN COLORADO.¹

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It is well, I think, to recall every once in a while the fact of the prevalence of phthisis. In a general way it is recognized that it is a dread disease, the cause of many deaths, and, until recently, it has been considered incurable. One is almost appalled, however, when he comes to investigate the facts. It seems nearly incomprehensible that about 100,000 lives are lost annually in the United States alone through this fell complaint, and that in general it is the direct cause of twelve per cent. of all mortality, and that in many cities this percentage runs up to even twenty per centum of all deaths.

Since the days when smallpox created such frightful ravages, which happily are now done away with by proper sanitary measures and by the introduction of vaccination, pulmonary consumption has become the dread foe of mankind, the insatiate minotaur of disease.

The accustomed, the every-day event, is apt to attract but little attention. It is the unaccustomed that is noticed. So when Spain loses 100,000 of her population by an epidemic of cholera, the world is struck dumb with fear and sorrow. The annual loss of an equal number of lives in our own country, by a disease more insidious and quite as fatal, passes without comment.

The reason for this may be that we feel ourselves, in a measure, helpless. We know not which way to turn to prevent. The introduction of the germ theory and the demonstration of the bacillus has not aided us much. Deep inhalations, the pneumatic cabinet, deep injections, creasote, iodine, carbolic acid, intiation with hydrogen sulphide, and all other means of treatment have not been of much avail. They have not sensibly diminished the death-rate.

To-day the best accepted plan of treatment is the climatic, the application of atmospheric and telluric influences to this diseased condition.

Undoubtedly different manifestations of the disease require different kinds of climate. It would not be proper, for instance, to subject an advanced case of laryngeal phthisis to the rigorous climates that many cases of incipient phthisis can stand, nor to place an enfeebled person, with bad digestion and

poor powers of reaction, where his system would be still further enfeebled rather than built up.

Dr. Knight, of Boston, in an able paper read before the Society for Medical Observation a year ago, has very ably summarized the ideas of the profession, or perhaps I should say those ideas most generally held, with reference to the selection of a climate for patients with pulmonary tuberculosis; and, inasmuch as they are the opinions held by Hermann Weber, Lindsay, and others, I will venture to state them briefly.

The first object to be attained, he writes, is an out-of-door life in a pure air, the chief good coming through the general improvement in nutrition, and this reaches its maximum benefit when the patient can lead an active out-of-door life at considerable elevation (4,000 to 8,000 feet above the sea-level). He then proceeds to say that "There seems little doubt that in suitable cases the improvement in nutritive activity is much more marked in mountainous regions than on the plains," the reasons being (1) rarefied air; (2) dry and pure air; (3) the large number of clear days when the invalid can be out of doors.

In the main, the cases that can expect a benefit from the climates of high elevations are the incipient cases, those cases more advanced, but without excavations and not having any serious constitutional disturbance; the hemorrhagic, fibroid conditions, when the patient is young and the heart not enlarged, and those recovering from pleurisy or pneumonia, in whom the irruption of tubercle is feared. With reference to high altitudes he remarks: "The region which I have found best for this kind of treatment is the eastern slope of the Rocky Mountains, in the States of Colorado and New Mexico, where the altitude ranges from 4,000 to 8,000 feet."

Such, then, is the opinion of one of the recognized leaders in this particular branch of medicine in this country, an opinion which is meeting with constantly increasing acceptance. Across the water the same ideas exist with reference to high-altitude cures, and they find expression in a recent utterance of Sir Andrew Clark: "I am as sure as I can be about anything at present, incapable of actual demonstration, that the recoveries from phthisis judiciously treated at high altitudes, are much more numerous and much more lasting than those treated by any other method at any other place."

I trust that the Society will pardon me this introduction to what I wish to present as the main idea for the discussion this evening. I have made it because I wish to emphasize the fact that we have in our climate those conditions which experience has shown, and which the profession are learning to recognize, conduce to more numerous and more lasting cures from phthisis than those treated by any other method. We have conditions favorable for out-of-

¹ Read before the Denver Medical Association, etc., March 7, 1889.

door life in an elevated region. We have the dry and pure air, and a percentage of sunshine that is almost unrivalled. We can point with pride to a close analysis of our meteorological data, and square them by the crucial tests proposed by Franklin, Weber, Tucker Wise, and others for the desirable climatic elements in the treatment of phthisis, and find them in no whit wanting. There are those among us who have spent no little time and effort in calling the attention of the profession, and of the public, too, to these climatic conditions, and to their efficacy in the arrest and cure of pulmonary disease. But we must not rest here; we should learn to take advantage of all that modern investigation has proved to be of avail in the proper treatment of phthisis and superimpose it upon the benefits to be derived from our climate.

"The author will have written to little purpose," says Dr. Lindsay, "if he has not shown that climate *per se* is not the exclusive agent in the case, and that to rely upon it alone, to the exclusion of its indirect influence upon life and habit, is to invite failure."

"Wherever the patient goes he should, if possible," writes Dr. Knight, "consult some good physician of the region, who will lay out a plan of life. Many patients make themselves sick, and even destroy their chances of recovery, by neglecting to consult a local authority for this purpose."

"I have already alluded to the circumstance," are the words of Dr. Hermann Weber, "that intelligence on the part of the patient and his friends is a great help toward recovery in phthisis, and that want of judgment into the nature of the illness, and of the manifold dangers, and into the means of cure, renders the prognosis less hopeful, unless we are able to place the patient under the strictest superintendence of a judicious doctor, etc."

I have introduced these quotations because they voice what has probably been the experience of every one here, that people coming here and attempting to look after themselves, without medical advice, do not, as a rule, reap the best that is to be gained from our climate; and that very generally they make some grievous mistake which costs them so severely in point of health that they die, or go away disgusted saying that the climate is not what it is cracked up to be.

A climate, like any therapeutic measure, has to be used discreetly to obtain the best that can be gained from it, and this can be attained in the best way from consulting those who have had experience in it. Not only does it require a knowledge of the climate to treat a phthical patient properly, but the practitioner, to be well equipped, should have had an experience in handling such cases, so as to know how to give directions into the minutest details of the regulation of the patient's life.

I know of no disease that requires such careful handling as that of phthisis. The treatment is somewhat concerned with the administration of drugs, but only to a slight extent in comparison with the attention that has to be given to the regulation of

diet, exercise, clothing, the proper attention to all functions, the ventilation of the rooms, the regulation of the hours of sleep—in fact, the regulating of the invalid's life.

Many think that such details can only be carried out by putting the patient under the very closest surveillance, and for this purpose sanatoria have been erected at which phthical patients are gathered, and in which their lives are regulated to a nicety, the whole institution being run on a system with almost clock-like precision. The two most noted of these sanatoria are those of Dr. Hermann Brehmer, at Görbesdorf (elevation 1740 feet), and of Dr. Dettweiler, at Falkenstein (elevation 1500 feet).

The attention of the profession in America has recently been called to the two systems by two excellent articles from the pen of my friend, Dr. Kretschmar, of Brooklyn, and they have, further, the endorsement of Dr. Hermann Weber, to the effect that "the results obtained at this establishment show how much can be done in phthisis by carefully arranged hygienic management, even with imperfect climatic elements."

It is worth our while to inquire whether some such system might not be introduced with advantage in our treatment of this disease, rather than to keep on pursuing the plan now in vogue—which, in contradistinction, I have called the cottage plan—which allows the invalid to be his own master, to live, always subject to direction, of course, but without surveillance, in a boarding-house, hotel, or at his own home.

I know that this plan has many disadvantages, and yet I am a strong believer in it. I know that in the matter of exercise, for instance, which should be regulated with great care, in accordance with the demands of the individual case, it is not always possible to get your patient to carry out instructions unless he be carefully watched. I have seen more harm done by over-exercise than by too little exercise. I can recall a case in which recovery was sacrificed to a fishing excursion of only a few hours' duration. I have in mind another case in which irreparable harm was done by too long a ride on horseback. I think a life in my practice was sacrificed by pitching quoits and swinging Indian-clubs after a fatiguing journey. I have seen imprudence in regard to tiring one's self in talking, singing, and keeping late hours, produce severe hemorrhages. I need not multiply examples; they will recur to each one of you. To be sure these results might have been avoided in a sanatorium where the patient would have been under guard; but such cases, after all, are few in comparison with the total of cases under treatment. The majority of patients will use due care, if the importance of the subject be presented to them, and it is possible, if such measures be necessary, to have the watch established and

conducted by the friends and family rather than by hirelings.

I will acknowledge, too, that it is of the utmost importance that the invalid should have the proper amount of out-of-door life, here again regulated to the demands of the particular case. If he be weak, it should be obtained by sitting or resting in the open air; if he be stronger, by moderate walking and driving; and, where he is able, by a life in the saddle.

But we in Colorado have not found it necessary to build sanatoria to carry out these ideas, and our results can attest our successes.

It is of the utmost importance that the strictest attention should be paid to the diet of the invalid. Undoubtedly this can be regulated to a fine point in a sanatorium. It may be necessary to cater to a capricious and whimsical appetite, or to have the food supplied frequently and in small amounts, all of which can be carried out in a sanatorium, as is done in the two I have mentioned.

But when this becomes absolutely necessary it can be done in one's home quite as well as in a sanatorium, and that is the plan followed in Colorado.

It is not necessary to go into all the details of the regulation of an invalid's life, which can undoubtedly be carried out to their fullest extent at some well-conducted institution. There are these very decided objections in my mind to such methods.

I think that it should never be lost sight of that the phthisical invalid is a human being, usually of mature years, who values his independence, who chafes under discipline of any sort, and who hates and detests being schooled again, or being huddled with other invalids like a flock of sheep.

It seems to me that enough attention has not been paid to the treatment of the mental states of phthisical patients. The *spes phthisica* has become proverbial, and it is spoken of off-hand as though, given a phthisical case, he must necessarily be hopeful, and therefore cheerful, a condition that he can no more help, and for which he is no more responsible, than a good Knox Presbyterian is for the sins that he was foreordained to commit.

This is by no means the case. He may be deceived as regards the seriousness of his condition, but he is by no means free from depression. He is rather fond of dwelling on his symptoms, of comparing notes with his fellow invalid. He watches too closely, if he be permitted to do so, his appetite, his digestion, the hours of sleep, his temperature, the amount of cough, and character and quantity of his expectoration.

He is easily depressed by a slight variation from the normal in any of these conditions, and is made very apprehensive by any ill that befalls another invalid, lest the like may soon come upon him. A death casts a gloom over the whole community, and

produces a mental depression in a colony of invalids that has a serious effect upon their well-being.

Because of this infectiousness, because of their too great susceptibility to the blues, because grit and determination and a cheerful mental condition have a great part to play in effecting a recovery, I think it inadvisable to congregate invalids where their thoughts are constantly employed in comparing notes with fellow invalids, and where they are subjected to the depressing influences that necessarily surround disease.

Again, all authorities agree now-a-days that an aseptic air is a prime essential in effecting a cure. I need not run over the writers to prove this fact. It is a well-recognized principle, and can be summed up in the words of Dr. Hermann Weber: "Hence it is clear that *purity* or an *aseptic state* of the air is the first demand which we ought to make on the climates to which we send persons affected with phthisis;" and then later on he writes: "*Purity or aseptic quality of the air is incompatible with the crowding together of a large number of invalids.*"

This is, it seems to me, a positive objection to the sanatoria, that by crowding the invalids together they render an air aseptic in itself very foul and septic. So well recognized is this that great pains are taken at most sanatoria to produce good ventilation.

But no better precautions can be taken, it seems to me, than to isolate such cases from each other.

I must confess that it strikes me as somewhat absurd to advocate the absolute necessity for a pure, aseptic atmosphere, and then to constantly subject the patient to septic influences.

Dr. Geddings, of Aiken, in a recent paper, writes: "The physician in search of a health resort for his phthisical patient wishes to know, above all things, the extent to which the air of the place proposed is aseptic." Later, in the very same paper, which is a strong plea for the desirability of Aiken as a health resort because of its possessing an aseptic atmosphere, he writes:

"For a number of years I have resided near a large hotel which, during the winter, is frequented by a number of consumptives in every stage of their disease. These people, in expectorating, not infrequently miss the spittoon, and the muco-purulent sputa reach the carpet-covered floor. Others, again, use their pocket-handkerchiefs as cuspidors, or, as I have seen them do, they spread over the bed a large newspaper for that purpose, preserving it until the physician makes his visit in order that he may see the amount and character of the expectoration. Thus, even when not deposited upon the floor in the first instance, the sputum dries and portions of it, after being diffused through the atmosphere of the rooms, eventually settle upon the carpet. Then, mixed with dust, the bacilli are frequently stirred up by sweeping, but, in obedience to the laws of gravity, soon return to their resting-place on the carpets.

This goes on for months; day after day, week after week, the process is repeated, and it would be difficult to devise a better method of making a wholesale collection of tubercle bacilli."

We accept the doctor's statement, and believe that his conclusion is correct. It would be difficult to devise a better method of making a wholesale collection of tubercle bacilli.

Inasmuch as he also tells us that this large hotel is frequented by consumptives who have gone to Aiken under the advice of physicians, because its air is so thoroughly aseptic, we congratulate them on having attained their object so thoroughly.

But, leaving now the general discussion, I must hasten to summarize my ideas.

I am a firm believer, from years of experience and on theoretical grounds, in the efficacy of the Colorado climate in the arrest of a large number of cases of pulmonary tuberculosis of the types mentioned by Drs. Knight and Lindsay. I believe that the best results are obtained under the advice and careful supervision of a competent physician on the spot. I do not believe in congregating invalids, quite as much because of the dread of mental contamination as because of the exposure to septic influences.

I am convinced that good results are only to be obtained by paying strict attention to the minutest details in each individual case in regard to the diet, exercise, sleep, ventilation, clothing, the several functions of the body—in fact, by a close watch over a patient's daily life.

I know that this can be done, as it is now being carried out in Denver, Colorado Springs, Manitou, and other places in Colorado, by permitting the invalid to live a home life, in his own house or one that he rents, with his family; or, where such surroundings are not possible, in a well-selected boarding-house.

There are objections at times to this method. The physician does not invariably have the absolute control of his patient that he would have were the case placed under strict surveillance in an institution for such cases, and bad results do occur, as I presume they do even at Görbesdorf or Falkenstein. But, gentlemen, I have been a consumptive invalid myself, and many of you have also been in the same condition yourselves, and I appeal to you, if you do not feel with me, that as a consumptive you would rather live as a man, under the plan pursued in Colorado, than be caged with a crowd of hollow-coughing consumptives in any sanatorium, even though it might have the covered walks and the winter garden, suitably warmed and ventilated, of Görbesdorf itself.

One objection is frequently made to Colorado as a resort, and that is that it is no place for a poor man.

Unfortunately this is true. The expense of getting here is great, and the cost of living after one reaches here is considerable. It is to be doubted, however, if the erection of sanatoria would materially help affairs. To be properly conducted they are expensive, and Dr. Kretschmar says of Dr. Dettweiler's establishment at Falkenstein that the expenses amount to not over twelve marks or three dollars a day, a condition of affairs which would certainly not help a poor man very much, and a daily expense which would enable any one to live very comfortably in Colorado.

SUDDEN DEATH IN TYPHOID FEVER.

BY A. MCPHEDRAN, M.B.,

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IN connection with an editorial on this subject in *THE MEDICAL NEWS* of February 15, 1888, this case will prove of interest. The following notes of the history are abstracted from my hospital case-book.

Thos. M., aged thirty-two, laborer, was admitted to the Toronto General Hospital, December 11, 1888. He said he had been ill one week before entering. His temperature was 105° F., and he seemed very ill for so early a period in the disease; this was probably due to the disturbance incident to his removal to the hospital—he came from one of the suburbs, a distance of six miles. A few days later the symptoms moderated and presented those of an ordinary attack of typhoid fever. He continued to do well, and on December 20th his temperature was 102°, pulse 100, regular and of good volume and tension; taking plenty of nourishment; sleeping well; urine normal; no diarrhœa.

December 21. His condition was reported by Dr. T. P. Weir, my house physician, as quite satisfactory, pulse being even stronger.

December 22. 1 A. M. Seen by Dr. Weir, who made a special visit to the ward on account of a change of nurses. Sleeping quietly. A few minutes later he asked the nurse, who was attending a patient in the next bed, for a drink, which was given without his making any movement. A minute or two later she noticed that his breathing was distressed. He moved his arms about and seemed to be conscious. Before Dr. Weir, who was summoned, could reach him he was dead.

Post-mortem.—Ulcers in lowest twenty inches of ileum indicated the end of the second week of the disease. Mesenteric gland near ileo-colic valve very large and diffuent. Solitary glands in cæcum, ascending and transverse colon enlarged but not ulcerated. Kidneys healthy. Lungs: some old pleuritic adhesions; slight œdema at apex of right; some venous congestion of both posteriorly, probably post-mortem. Heart: right auricle greatly distended with recent black clot; right ventricle considerably distended; left side of heart contained a little blood, ventricular wall not contracted. Brain was not examined.

The symptoms attending death in the foregoing case indicate cardio-respiratory failure as the cause of death and as no adequate cause of death was to be found in the lungs the cause must be attributed to heart failure. The symptoms were not compatible with a cerebral cause. The tissue of the heart was firm and showed no histological change to account for such failure. There were no evidences of the existence of such causes of sudden death in typhoid fever as hemorrhage, embolism, uræmia or overwhelming typhoid toxæmia. The only cause suggested in the aforesaid article in *THE MEDICAL NEWS* having even a possible connection is special localization of the infecting principle upon the pneumogastric nerves. That such localization ever occurs is only a theory incapable of proof; the probability of its being true is, to say the least, doubtful. It is difficult to understand how a poison that is depressing in all the other manifestations of its effects could in this instance act as a stimulant and so excite the vagus centre as suddenly to arrest the heart's action in diastole.

A much more probable theory is given in a most interesting and valuable paper lately published by Prof. John McWilliam, of the University of Aberdeen, on "Cardiac Failure and Sudden Death." He says that

"A long series of experiments on the mammalian heart has convinced me that in ordinary circumstances sudden cardiac failure does not usually take the form of a simple ventricular standstill in diastole. . . . It assumes, on the contrary, the form of violent, though irregular and incoordinated, manifestation of ventricular energy. Instead of quiescence, there is tumultuous activity, irregular in its character and wholly ineffective as regards its results. . . . The muscular action partakes of the nature of an arrhythmic, incoordinated, and rapidly repeated contraction of the various muscular bundles. Some bundles are in a state of contraction while other bundles are relaxed, and instead of a coördinated contraction leading to a definite narrowing of the ventricular cavity, there occurs an irregular and complicated arrhythmic oscillation of the ventricular walls which remain in a position of diastole."

He points out that the susceptibility of the heart to be thrown into this state of "delirium" is increased by any conditions that interfere with its normal nutrition, as, for example, in the course of prolonged experiments in which "the nutrition of the heart is altered and impaired, its irritability is markedly exaggerated and the tissue has passed into a state of unstable equilibrium." The heart being in this condition of unstable equilibrium very slight causes may suffice to throw it into this state of irregular fibrillar mode of contraction—or "delirium cordis;" as, for instance, the gentlest handling or even a touch with the tip of the finger. And not only so, this state of delirium not infrequently develops spontaneously and without the intervention

of any apparent irritant or immediate disturbing agency.

In the light of these facts there seems little room for doubt that the nutrition of the heart is so altered in all depressing diseases, especially in typhoid fever and diphtheria, as to render it very liable to be thrown into "delirium," and this derangement of the heart's action probably occurs in all cases of sudden death in these diseases.

84 COLLEGE AVENUE.

RIGHT-SIDED APHASIA IN A LEFT-HANDED PERSON.

BY H. C. WOOD, M.D.,

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THE following case has seemed to me worthy of being recorded on account of the curious relations between the habitual use of the hands and the speech function. On reading the record taken from my note books, it will be seen that the aphasia was the result of a lesion in the left side of the brain. Although the person was for the ordinary purposes of life left-handed, he had always written with the right hand; the centres connected with writing, in locating themselves, so to speak, had followed not the centres of habitual physical action, but the centres of speech function. In other words, this man possessed a brain in which the speech centres were highly developed in the left hemisphere, although the motor centres for the hand and leg, and probably for the face, were more highly developed in the right than in the left hemisphere, and in which when the art of writing was learned, the motor centres of the left hemisphere underwent special development, apparently on account of their close relations with the centres of speech.

Mr. S. B. K., was brought to my office by Dr. E. N. Musser of Mechanicsburg, Pa., with the following history. A retired merchant of about fifty, he was in good health until the 10th of September 1888, except that for several days he had complained of numbness of the right side, especially of the fingers; although examination by Dr. Musser failed to detect any loss of sensation in the arm. On the day mentioned, while telling a story, he suddenly lost the thread of his narrative and after a moment's silence, said to a friend, "There is something the matter with me." On attempting to walk, he found that locomotion was impaired; but leaning on his friend's arm he finally reached home. When Dr. Musser saw him he could not walk alone at all with his eyes open, although with assistance he could. "When his eyes were closed, could not take a step." He could move his hands and feet, but in walking had a distinctly ataxic gait. There was no headache; no convulsive movements; no loss of consciousness. The aphasia gradually increased, and

¹ British Medical Journal, January 5, 1889.

by the end of the week it was almost complete. It was also accompanied, Dr. Musser thought, by progressive loss of mental power.

The following I take directly from my note book. "The patient is evidently left-handed. Dr. Musser states that he has always used the cane, saw or hatchet with the left hand. In my office he uses the scissors perfectly well with his left hand, but he writes, as he always has done, with his right hand. The left pupil is a little larger than the right; the left grip 100, the right 90; station on both feet good; can stand distinctly steadier on the left than on the right leg, but station is not much affected by shutting the eyes. In walking he drags his right toes; when he walks with his eyes shut, does so with evident difficulty, staggers and seems about to fall, although he recovers himself. The knee-jerk on the left side is apparently a little more active than on the right leg; there is distinct loss of sensation of the right hand, and a slighter loss in the right foot; there is no alteration of the optic disks, and an attempted examination of the visual field failed on account of the patient becoming very excited so that it was utterly impossible to make him understand, or to get him to do what was wanted. He hears the watch on the right side about three inches, on the left side not more than five or six inches. There is no distinct facial palsy.

The patient's intellectual powers are evidently much affected, it being very difficult to get him to understand what is wanted. The aphasia is very pronounced, but not absolutely complete. He formerly talked German fairly well, but at present uses no German except one or two words; seems to understand questions much less readily than when addressed to him in English. The following questions and answers give a fair idea of his aphasic condition.

"How long have you been sick?" "Twill t-t twill till." "Have you headache?" "Yes, sir." "Where?" "I-I have t-will it t-twill l-leav pal north till or nor." "Can you read?" "Yes, sir." (Reads.) "Meri can ant only can't see at does lesanteen an und max, l-tel neville." In answer to the question if he went to bed by himself, he commenced to make signs of undressing. When asked what time it was, he looked at his watch and said, "warter of three," it being twenty minutes of three, and he evidently seeing that the hand was at twenty minutes and near the quarter, and not being able to say "twenty minutes," did the best that he could. When asked to write his name and address, wrote his name legibly, then the address illegibly; and when asked to write some words, was unable to do so at all.

HÆMATOMA OF THE SEPTUM NARIUM.¹

BY MAX THORNER, M.D.,
OF CINCINNATI, OHIO.

C. H. S., German, tailor, consulted me about eight weeks ago in reference to an obstruction of both nostrils. He had been under my care during last summer for nasal polypi, which had been

successfully removed. He attributed the present trouble to a "cold," or the possible recurrence of the polypi. Upon examination I found that both nostrils were entirely obstructed by a tumefaction on both sides of the cartilaginous septum, which, touching the inferior turbinated bones, rendered nasal respiration well-nigh impossible. The swelling, which was distinctly fusiform, appeared to be covered by a purplish-red, glistening mucous membrane; it was not sensitive to the touch, and yielded readily to pressure with the probe.

Since there had never been any evidence of this tumor in the patient's nose during his former treatment, I elicited upon further inquiry the following history from him:

About a week previous to this consultation he happened to come home in a wagon, and arriving at a door in the rear of his home, jumped down hastily on to the door steps. At this very moment his wife, who had been awaiting him, suddenly opened the door, which opened outward, and he was struck very forcibly by the door on his nose. He, however, did not pay any attention to this accident, there being a slight hemorrhage only, whilst the pain produced by the injury, though intense in the beginning, subsequently subsided within a short time.

For that reason, a few days later, when he first noticed the obstruction of his nose, he did not attribute it to the sustained contusion, but simply charged it on the much-abused and popular etiological factor of "having caught a cold."

I made an incision into the tumefaction, on the left side, with a curved bistoury. About a drachm of blood having escaped, the tumor on both sides of the septum flattened, and the mucous membrane lay close to the cartilage. When I saw the patient the next day the sac had partially filled again. But this time he refused another incision, in order to try first some home remedies. Three days later the swelling was as large as in the beginning. In spite of my urgent advice to have another incision made, the patient insisted upon continuing poulticing his nose, which, according to popular belief, would reduce the swelling without resorting to knives.

He reappeared, three days later, in a somewhat altered condition. The last days he had felt miserable, had had several chills, had been unable to sleep, and had the most intense pain in his whole head. He complained also of loss of appetite, and of pain in his eyes. The latter presented chemosis of the conjunctiva, epiphora, and oedema of the lower lids. The swelling on both sides of the septum had increased, the mucous membrane covering the same was crimson, and fluctuation from one nostril to the other was very distinct. There was no doubt that pus had formed, and that we had now to deal with an abscess instead of a hæmatoma. By two long incisions across the bulging swelling on both sides of the septum, a considerable amount of pus was evacuated. In the middle of the cartilaginous septum was a perforation the size of a small bean. The probe could be introduced about one inch backward, and touched the denuded vomer.

¹ Read before the Cincinnati Medical Society, February 12, 1889.

After-treatment consisted in tamponing the abscess cavity with iodoform gauze, repeated every day; and in three weeks the cavity had closed, leaving only a small perforation in the cartilaginous septum. There remained, however, around this perforation, and especially near the floor of the right nasal fossa, a solid thickening on the septum, representing, no doubt, an ecchondrosis, due to a simultaneous perichondritis.

Hæmatoma of the septum narium is not a frequent occurrence. A great many text-books do not mention it at all. According to Sir Morell Mackenzie, it is nearly always caused by direct injuries to the nose. An extravasation of blood between the deeper layers of the mucous membrane and the cartilage takes place; and the septum mostly being fractured, the escaped blood assumes the shape of a bilateral tumor on both sides of the septum. Morell Mackenzie, however, mentions two cases of spontaneous, unilateral hæmatoma of the nasal septum. If the blood be not absorbed readily, which is not probable, surgical measures must be resorted to; otherwise there will soon be purulent degeneration of the contents of the sac, as occurred in my case.

The diagnosis is easily to be made: the history of a previous traumatism, the sudden development of a bilateral, symmetrical tumor, the physical condition of the same, the absence of pain and fever, and, eventually, in doubtful cases, the aspiration of the contents with the exploring needle, will settle any doubt regarding the nature of the tumefaction.

In conclusion, I wish to call attention to the fact that, as it was the case with my patient, there remains mostly a perforation in the septum. The latter has been regarded, and is sometimes still looked upon, as a pathognomonic sign of a specific infection. On a former occasion I have tried to show how little we can depend upon the presence of a perforation in the nasal septum alone for the diagnosis of syphilis.

I have seen a number of such perforations, where syphilis could be excluded with certainty, although I fully agree with J. Solis-Cohen, when he says: "The probability is, in at least a fair proportion of instances, that the perforation has resulted during the course of a syphilitic coryza, which has occurred in early infancy." (*Diseases of the Throat and Nasal Passages*, 2d ed.) Yet there is a variety of other circumstances that may produce perforations: as in the reported case, hæmatoma or abscess of the septum, or operations performed upon the same. We find, furthermore, perforations as sequelæ of scrofulous or tubercular affections, of phlegmonous inflammations, and of lupus of the nose. They have been observed following variola and typhoid fever, and they are found occasionally in chronic rhinitis, especially in the atrophic form. Also the bad habit of removing, with the finger-nail, crusts and scabs

adhering to erosions of the septum has frequently resulted in perforations. And according to Carl Seiler (*Diseases of the Throat, Nose, and Nasopharynx*, 3d ed.), they are said to be always present in workmen employed in bichromate of potash works.

354 W. EIGHTH ST., CINCINNATI.

HOSPITAL NOTES.

MATERNITY HOSPITAL OF PHILADELPHIA.

SERVICE OF BARTON COOKE HIRST, M.D.

HÆMATURIA IN PREGNANCY.

This is a subject which receives almost no attention in current works on obstetrics, and yet blood in the urine is a symptom of not such very rare occurrence in the pregnant woman, and is one, moreover, that always excites the alarm of a patient and those interested in her, and may cause the attending physician some anxiety.

M. S., primigravida, aged twenty-six years. When about six months pregnant she first noticed that her urine was bloody; the hæmaturia appeared suddenly, and to as great a degree as it has since attained. There is no history of malarial infection. There have been no intervals in which the urine was clear; at every micturition there has been a considerable quantity of blood mixed with the urine. There is no history of traumatism. As long as the patient can remember she has suffered pain over the region of the kidneys, which, at intervals, has become quite intense, shooting down along the course of the ureters. Since the appearance of the hæmaturia there has been some difficulty in urination; the flow is suddenly stopped, apparently by the lodgement of a small clot in the urethra; as soon as this is expelled the stream again becomes free. This condition persisted until the delivery of the infant. On the second day of the puerperium the quantity of blood was much diminished; on the third day it had quite disappeared, and there is now, nine days post-partum, no trace of it.

The explanation of this case, as of the majority in which bloody urine appears during pregnancy, is very likely to be found in bleeding hemorrhoids of the bladder, produced by the pressure of the large gravid womb upon the pelvic veins.

There were symptoms pointing to the possibility of an impacted renal calculus, but the absence of acute pain while the patient was under our observation; the sudden onset of the hæmaturia when the uterus had reached a size to exert pressure upon the pelvic organs; the rapid disappearance of the blood as soon as this mechanical obstruction was, in great part, removed, all point to the hemorrhoidal origin of the hemorrhage.

The treatment of such a case can be little more than expectant until pregnancy is terminated, unless—a rare event—the quantity of blood lost is alarming.

MEDICAL PROGRESS.

The Treatment of Ileus.—DR. GOLTDAMMER recently delivered an address on ileus before the Berlin Medical Society. It was based on fifty observations (thirty men and twenty women). Thirty-five of the whole number

died and fifteen were cured. With regard to the fundamental condition accurate statements could be made in thirty-eight cases. In ten cases there was carcinoma of the colon; in seven invagination; in six the cause of the ileus was found to be kinking of the coils of the small intestine, owing to circumscribed peritonitis; in five it was old cicatricial stricture; in four volvulus; in two tubercular peritonitis; in two internal incarceration. In one, in which the patient was moribund when admitted, the cause was reduction of a hernia *en masse*, and in one a gall-stone impacted in the small intestine. In all the malignant cases it was the large intestine that was affected. Rectal cancers were not included. In only two of the ten cases could a tumor be felt in the region of the sigmoid flexure. The seat of the stricture could never be reached from the rectum. In one of these cases the patient was a girl, aged twenty-five; in another a man, aged twenty-six. Of the other cases of chronic stricture of the gut there were four of the old cicatricial stricture of the large and one of the small intestine. In two cases tubercular peritonitis had led to the matting together of the coils of small intestine and of their adhesion to the abdominal walls, and hence to strangulation. Of the intussusception cases the affected part was in one the descending colon; in three the small intestine; in two there was invagination of the ileum into the colon; whilst one case remained doubtful. In three of these cases a distinct tumor could be felt. In six cases death occurred after a duration of from four to eight weeks; one case recovered. The volvulus cases as well as those of internal strangulation all ended fatally in a few days. The treatment was confined to two things: the exhibition of opium in large doses and rigorous diet. The beneficial effect of opium on the acute symptoms of intestinal occlusion is well known. For this purpose it should be administered in the largest doses till contraction of the pupil, or less frequently, sleep is induced. If the opium cannot be kept on the stomach, morphine must be given hypodermatically. Injections of water or inflation with air should next be tried. In chronic obstruction a slow passage of feces may occur when, owing to the stoppage of peristaltic action, the pressure of additional feces from above against the strictured point is arrested. Of the acute forms of stricture, intussusception is unquestionably benefited by opium. In these cases the imprisoned gut may spontaneously become released. One is often told by such patients that they have had similar attacks before. Every stimulation of peristaltic movement increases the constriction of the invaginated portion of intestine. The same holds good with regard to volvulus and internal strangulation. Here also arrest of peristalsis mostly prevents further filling of the intestine, and makes relief of the obstruction possible. For the release of the upper intestinal segment the application of the stomach-pump and puncture of the distended gut should also be tried. Together with the opium treatment, the strictest diet must be prescribed. Only small pieces of ice should be swallowed; nutrient enemata must be given. When complete rest of the bowels has been induced one to three litres of water should be injected with moderate force once or twice a day. By this plan of treatment Dr. Goldammer succeeded in curing fifteen out of the fifty cases. From this he inferred that it is premature to look upon operative interference as the only remedy in ileus. The ten cases of cancer and the five of old cicatricial

stricture afforded no hope of success from operation. In fifteen other cases it might, perhaps, on the whole, be conceded that timely surgical intervention offered a moderately good prospect.

With regard to the question why, in these cases no operation was attempted, Dr. Goldammer reminded his hearers that during life it was impossible to make a precise diagnosis. From this difficulty of diagnosis, and from the fact that a considerable number of patients recovered without operation, he argued that the field of preliminary laparotomy ought not to be extended. As regards diagnosis, it was perhaps possible to divide cases into two groups—namely, chronic mechanical obstruction of the lower part of the intestine, and acute internal strangulation and intussusception. But even this distinction is often not possible in particular cases. Moreover, the complication with peritonitis involves great difficulties; even coprostasis cannot always be excluded under the circumstances. A number of accurately recorded cases serve to prove that a favorable turn may often take place at a very late period of the illness. In addition to this, laparotomy is a dangerous operation. Patients suffering from ileus seem to bear the operation very badly, in spite of all antiseptics. Collapse and weakness of the heart's action are usually very marked. The peritoneum is, as a rule, not in a normal state, and, therefore, reacts differently from a healthy membrane. Unexpected difficulties are also often met with in operating. Dr. Goldammer quoted instances exemplifying this.

Setting aside cases in which ileus depends on a hernia, preliminary laparotomy must, he said, be limited to (1) cases in which intussusception is recognized—the condition of which is most readily diagnosed with any certainty. The youth of the patient, suddenness of onset, absence of meteorism, loose and bloody stools, tenesmus, with the presence of a tumor of characteristic shape, will enable the experienced to make a diagnosis. (2) Cases in which, after an acute onset, and in spite of energetic treatment with opium, severe symptoms of obstruction and collapse persist, so as to give rise to the suspicion of acute internal strangulation. In both these cases laparotomy should be determined upon early. (3) The operation should be undertaken as a last resource in cases in which, after the subsidence of all symptoms under opium, severe symptoms set in anew. In these cases surgical interference may often be too late.

The discussion on Dr. Goldammer's address took place at a later meeting of the Society on March 20th. DR. SCHLANGE took up a different standpoint from that of the lecturer, whose views he described as retrograde and opposed to the results of modern surgery. Even if the making of a precise diagnosis had to be postponed, a surgeon who operated in every case (the opening of the abdominal cavity being now free from danger) would not only have cured all the cases which had got well under Dr. Goldammer's treatment, but would have rescued a much larger number at least from immediate death, even if the essential disease had continued to exist. Of course, laparotomy was practicable only before peritonitis had set in. All depended on an early diagnosis. He warned surgeons against operating in the later stages of the disease after the onset of peritonitis.

DR. FÜRBRINGER agreed essentially with Dr. Goldammer's view, especially as regards the uncertainty of

diagnosis and the treatment, but he made more use of washing out the stomach and of injections high up into the intestine. Of the patients under his charge in his wards nearly two-thirds had died, while one-third had recovered, under this treatment. He called particular attention to one group of cases, which to a certain extent represented a distinct class; it was characterized by five marks: 1, stoppage of the bowels lasting from eight to fourteen days; 2, stercoraceous vomiting; 3, meteorism; 4, exudation which could be felt from the rectum; 5, atypical fever. These cases usually ended fatally from perityphlitic processes. Of such cases, which seemed almost hopeless, he had cured six by the treatment mentioned.

DR. KUSTER entirely endorsed Dr. Goltdammer's suggestions. An operation must be performed in all cases of acute strangulation, especially reduction *en masse*, which could be diagnosed with certainty. Among the cases of slow development there was a group which was also open to diagnosis, namely, neoplasms, the presence of which could be recognized by a mucous discharge, which gradually became bloody. These cases called for enterostomy. For the bulk of other cases surgeons must first endeavor to obtain accurate means of diagnosis.

DR. SONNENBURG urged that surgeons should seek to determine the seat and nature of obstruction, and not rest contented with a general diagnosis of "ileus." Dr. Goltdammer had contributed nothing toward the elucidation of this important question. In the opium treatment there was danger that the feeling of comfort given by the drug might cause the favorable time for surgical interference to be lost. He referred to Von Wahl's method of inflating some segments of intestine as being possibly useful for diagnosis.

PROFESSOR SENATOR recalled an utterance of Professor Bardeleben in a previous discussion on this subject that people might, so long as the diagnosis was so uncertain, reasonably differ as to whether an operation was justifiable or necessary in such cases. For his own part he did not think the present discussion afforded grounds for an essentially different standpoint.

DR. LANDAU mentioned two cases of ileus caused by retro-uterine hæmatocele. Such cases were open both to diagnosis and operative treatment.

After DR. JACUSIEL had spoken in support of Dr. Goltdammer's views, the latter replied to the objections which had been brought against his statements and suggestions, which, he said, were based on existing circumstances, and were not intended to govern medical practice for all time to come.—*British Med. Journal*, April 13, 1889.

Treatment of Intestinal Hemorrhage in Typhoid Fever.—DR. LINDSAY, Physician to the Belfast Royal Hospital, in a paper on this subject in *The Dublin Journal of Medical Science*, April 1889, says that he has always been accustomed to follow Murchison's instructions, and has given tannic acid, laudanum, and turpentine, with ice externally and ergotin by hypodermatic injection. Some good authorities prefer to omit the turpentine, but he cannot say that he has ever seen any harm resulting from its use, and its power as a hæmostatic is undoubted. In one of his cases he gave laudanum pretty freely, in spite of the presence of albumin in the urine, and with good results—no sign of narcotism appearing. He is disposed to think that in intestinal hem-

orrhage, as in hæmatocele and other forms of internal bleeding, opium may be given fearlessly, and pushed even to heroic doses. Stimulants are certainly required in some cases, but must be regulated with much caution.

In conclusion, he says that while intestinal hemorrhage in typhoid fever is a serious symptom, it is by no means usually fatal, and prompt and decisive treatment is called for, and will often prove effectual.

Treatment of Hysterical Convulsive Cough.—

R.—Powdered valerian root . 15 grains.
Powdered digitalis . . 1½ "
Powdered sugar . . 15 " —M.

Divide into ten powders. One to be taken every hour.

If the cough comes on during the menstrual period, and is accompanied with dysmenorrhœa, one teaspoonful of the following should be administered every two hours:

R.—Carbonate of ammonium . . 75 grains.
Tincture of opium . . 10 drops.
Decoction of yarrow . . 4 ounces.
Syrup of saffron . . 1 ounce.—M.

—*L'Union Medicale*, March 24, 1889.

The Hot-air Treatment of Tuberculosis.—A supplement to the *Berliner klin. Wochenschr.* of March 11th contains a recent address by Professor Kohlschütter, on Weigert's hot-air treatment of pulmonary tuberculosis, given at a meeting of the Aerzte-Verein, in Halle, on February 20th. The fact that this treatment has already become a subject of comment by the newspaper world did not deter the speaker from examining the question scientifically. It is known that tubercle bacilli are peculiarly susceptible to influences of temperature; their vitality is lowered by a temperature of 101.3° F., and they are killed by a temperature of 107.6° F. To breathe hot air continuously for any length of time is impossible—only one of the speaker's patients could do so for as long as an hour—and the beneficial action of hot air in the above sense must be on the well-known principle of intermittent gradual sterilization, the germs being killed off in successive crops as they develop. Weigert, in attempting to apply this clinically, showed that extremely hot dry air can be breathed without injury. In Weigert's apparatus (which may be procured from A. Meissner, 71 Friedrichstrasse, Berlin), the thermometer shows a temperature between 480° and 570° F., and, although the air actually inspired is doubtless not so hot as this, it is hot enough to cause the expired air to have a temperature of 60° C. (140° F.). In a particular case of Professor Kohlschütter's the following effects were observed: in seven weeks after inhalation, twice daily, the chest-girth increased from 36 to 38 inches, and a pleuritic exudation in the left side was absorbed. Crepitation and dulness were replaced by normal physical signs, and good breath-sounds were heard over both lungs. Careful examinations of the sputa showed that the bacillary appearances were remarkably altered. At first the bacilli were numerous and more or less uniformly scattered; subsequently they were found only in groups of three or four, and were far fewer. At a later stage they had all but disappeared. The temperature of the body rises

about the third of a degree (F.) after each inhalation, but soon subsides. The pulse frequently showed a difference of only five, as counted before and after each inhalation. The respirations became deeper and slower; the patient in question—several others were treated—at last could do with seven respirations per minute; this is ascribed to the difficulty of inspiring through long tubes. The previous dyspnoea was lost, and more exercise could be taken. The cough at first increased a little, the expectoration considerably; but, at the date of the address, both were lost altogether. The bodily weight had increased from 73 to 73.57 kilos. (nearly two pounds). The author expresses himself as well satisfied with the results so far, and thinks this method of treatment worthy of more extended trial.

Salicylic Acid in Chronic Tuberculous Joint Disease.—DR. R. W. LOVETT, in a paper on this subject, published in the *Boston Medical and Surgical Journal* of April 11, 1889, reaches the following conclusions:

That salicylic acid in large doses is useful as an aid to the mechanical treatment of chronic tuberculous joint disease, not in routine conditions, but—

(1) When night cries are present.
(2) When the diseased joint is very painful and sensitive to jar.

(3) When vomiting and general discomfort are associated with an increase in the local disease.

That relief from pain, and diminished sensitiveness follow at once, as quickly as in acute articular rheumatism, and that the drug should be given in as large doses as for that affection until the pain is relieved or the physiological effect is produced.

Atrophy of the Optic Nerves Treated by Suspension.—DR. DARIER, at a meeting of the Société d'Ophthalmologie de Paris, held March 12, 1889, stated that the success obtained by Dr. Charcot from the suspension treatment of tabes had led him to try the same treatment in optic atrophy. The results surpassed all expectations. In all thus treated acuity of vision was greatly improved; one of the patients, who was nearly totally blind, being at present able to distinguish between objects. In two other patients acuity of vision was increased from one-sixth to one-third, and in still two others from one-quarter to one-half.

DR. ABADIE related the history of an eighteen-year-old patient, the sufferer from juvenile atrophy (his condition otherwise being good), in whom suspension wrought such changes that he was able to read, which he had not been able to do for six months.—*Wiener med. Presse*, March 31, 1889.

Treatment of Tuberculous Ulcers of the Tongue.—

R.—Lactic acid 80 parts.
Water 20 " —M.

The affected parts to be touched several times daily with a camel's-hair brush previously immersed in this solution.—*Revue de Thérapeutique*, April 1, 1889.

Flute-player's Cramp.—A case of professional cramp in a flute-player was well described by DR. FÉRÉ at a recent meeting of the Société de Biologie. The patient was a habitual member of a theatrical company, to whom the

flute was the only instrument allotted. He felt at first a paralysis in the extensors of the ring finger and little finger of each hand, and then a cramp in the opposing muscles which made him drop the instrument, sometimes with a cry of pain. Local massage and general tonic treatment brought him back again to a condition fit to resume his former work, though those of his audience with a finer ear than the rest could trace the effects of the cramp in the slightly slower time in which the notes played with the ring finger and little finger were given. Brown-Séquard took the opportunity to press the remark that in such cases of professional cramp the fatigue of the whole body was at least an equally essential component with the local strain. In a case of writer's cramp in a Cincinnati journalist, he had seen both feet as much affected as both hands after an excess of writing. (*Le Progrès Méd.*, 1889, p. 126.)—*The Practitioner*, April, 1889.

Trephining in Epilepsy.—The operation of trephining for traumatic epilepsy has been followed by some brilliant results, and there can be no question as to the justifiable nature of the procedure. The knowledge of the topography of the brain which has been brought within the reach of practical surgeons by the valuable researches of Ferrier and others has made it a comparatively easy matter to localize the exact seat of lesion in some, at least, of the cases of traumatic epilepsy. The patient conscious of the coming nerve storm, is often able to refer the onset to a certain part of a limb. This affords a valuable clue to the situation of the spot in the brain the nutrition of which is at fault. The consideration of these cases is always most interesting, and surgeons may well be proud of the success which has followed so important a procedure.

M. Péan, of the St. Louis Hospital in Paris, has just recorded an interesting case of epilepsy cured by the application of the trephine. The patient was suffering from slight epileptic seizures, the right side being mainly affected, and the lower limb more than the upper. During the intervals between the attacks, there was some paresis of the right leg. The diagnosis was made of a cerebral tumor, and its localization determined. The trephine was applied, and a fibro-lipoma was found attached to the pia mater. The growth was removed forthwith, but for some days after the operation the convulsive fits continued. Subsequently, however, they entirely ceased, and the patient became convalescent.

Homeriana for Tuberculosis.—DR. LASKOFF states in the *Allg. med. Ctrl. Zig.* that he has successfully tried homeriana in the treatment of tuberculosis. This plant grows wild in Russia. Belonging to the order of Polygonaceæ, it contains an irritating oil, which, in fact, appears to be its foremost active principle. He administered this remedy in the form of an infusion, generally in affections of the respiratory passages, especially bronchitis and tuberculosis. Of 112 cases of tuberculosis treated with this remedy, he claims to have cured no less than 90; certainly a large number. The first symptoms of improvement observed were a fall of the temperature and a diminution in the expectoration. At the same time auscultation and percussion revealed marked improvement in the pulmonary symptoms.

In the more advanced stages of tuberculosis the action

of this drug diminishes, and although then unable to effect a cure, it still decreases markedly the night-sweats, cough, expectoration, etc.

The drug is administered in decoction or infusion made from one ounce of homeriana to two pints of water, which amount is to be taken during the twenty-four hours.—*Wiener med. Presse*, March 24, 1889.

Palpation of the Kidney.—DR. JAMES ISRAEL (*Berl. klin. Woch.*, No. 7, 1889) says that in palpating the kidneys one is apt to make the mistake of deviating too much laterally. If a line be drawn upward from the middle of Poupart's ligament parallel to the middle line, and the hand pressed deeply about two fingers' breadth below the point where this line intersects the costal margin, the normal kidney may be felt. It is important to have the abdominal muscles perfectly lax. Chloroform is useful, but has the disadvantage that we are unable to examine the organs in deep inspiration. It is also necessary to have the colon emptied.

Three methods may be adopted to palpate the kidney:

(1) *Bimanual palpation* in the dorsal position. The patient is placed on a firm couch, the knees slightly bent over a pillow. If the right kidney is to be examined, the physician stands on the right side, places the left hand under the lumbar region and with the right presses from before backward, the middle finger being placed one inch below the junction of the tenth rib with the costal margin. Pressure is exerted during expiration, and is kept up continuously until the fingers reach the kidney. In this examination, very gently and slowly increasing pressure (always with the flat hand) is necessary. The points of the fingers should never be bent, as it leads to reflex contraction of the abdominal wall.

(2) *Guyon's method*—"ballottement rénal"—consists in the production of a rapid movement of the kidney from behind forward, so that the organ may be felt from the anterior abdominal wall. The position is the same as in the former method. While the patient is quietly and slowly breathing with open mouth, one hand laid flatly over the lumbar region gives short regular taps against the loins, so that the overlying kidney is moved forward against the other hand placed in front.

(3) When these two modes fail, a third often succeeds. Here the patient is in the lateral position. He lies on the opposite side with his legs flexed, breathing slowly and deeply with open mouth. With one hand behind, the lumbar region is pressed forward, the patient inspires deeply, pressure is applied from the anterior abdominal wall, and at the end of inspiration the organ may be felt in its lowest position. It is this movement which distinguishes it.

Israel maintains, in opposition to some other authorities, that normal as well as diseased kidneys, if not fixed by new growth, perceptibly move downward in most cases with deep respiration, although not so constantly nor to such an extent as the liver and spleen. This may be readily determined, and in some cases seen, through the abdominal wall. He has demonstrated renal mobility during breathing in the course of an operation. When an incision is made into the cushion of fat surrounding the kidney, the organ may be seen to make a respiratory excursion of an inch in extent. This peculiarity, Israel says, is often of great service in diagnosis.—*The Practitioner*, April, 1889.

Transplanting the Cornea.—The transplantation of clear corneal tissue to take the place of the opaque cicatrix which is left after ulceration has been repeatedly tried. So far the method of doing this, introduced by v. Hippel a few years ago, appears to be the only one followed by anything like permanent success. After having given the operation a more extensive trial, v. Hippel has recently (*Graefe's Archiv*, xxxiv.) published a very full account of it, and has pointed out the precautions which seem necessary at each step. Of eight cases operated on, four were considered successful. From a degree of visual acuity not amounting to more than ability to count figures at six or nine feet, the patients attained after operation $\frac{20}{20}$ CC.

The operation itself is altogether free from danger, and may be undertaken in any case where there is not extensive attachment of the iris to the back of the leucoma, or considerable alteration in corneal curvature. A portion, generally about four millimetres in diameter, is removed from the patient's opaque cornea by means of a trephine, which is guarded by a ledge to prevent its entering too deeply, and the cutting edge of which is set in rotation by means of clockwork, in order to render it possible to obtain great precision in the depth and perpendicularity of the incision all round.

The result of Leber's experiments in connection with the flow of fluids within the eye, as well as the failure of previous attempts at transplantation, led v. Hippel to recognize that an essential condition of success consists in leaving Descemet's membrane intact. Only by doing so can the transparency of the transplanted portion be permanently maintained. In removing the portion circumscribed by the trephine with a pair of fine scissors and Graefe's knife, care must, therefore, be taken not to perforate, while at the same time as level a floor as possible is desirable. The next step consists in the removal of a portion of a rabbit's cornea. This is done with the same trephine, and must involve the whole thickness of the cornea. The difficulty in this step appears to be to keep the rabbit sufficiently quiet, although its cornea is well cocainized to permit of the excised portion having exactly the desired shape. When the portion of rabbit's cornea has been obtained it is glided into position, and care taken that it comes to lie, as far as possible, flush with the rest of the corneal surface, otherwise it is readily displaced. Iodoform is then powdered on the eye, and both eyes are bandaged and not touched for two or three days, after which a daily dressing is applied. No vascularity or intratransparency of the graft occurs where it succeeds.—*Edinburgh Medical Journal*, March, 1889.

Creolin in Suppurative Otitis.—The use of creolin in ear diseases is strongly recommended by DR. PURJESZ, of Buda-Pesth. In cases of acute and chronic inflammation of the middle ear he syringes once or twice daily with a solution containing five or six drops of creolin to about nine ounces of water, in addition to which the Eustachian tube is opened up by the employment of Politzer's method, or, if necessary, by means of catheterization. Dr. Purjesz finds that creolin is an excellent antiseptic for this purpose, and in the strength employed by him quite free from any objection on the score of causing irritation. Its low price, too, makes it especially suitable in practice amongst the poor.—*Lancet*, April 6, 1889.

THE MEDICAL NEWS.

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SATURDAY, MAY 4, 1889.

SYRINGOMYELIA.

By occasional contributions our knowledge of syringomyelia is becoming more certain and its differentiation more easy. It is a disease in which the cord contains cavities of abnormal size and distribution. As an anatomical curiosity it has been known for two centuries; as a type of disease it has only been clearly recognized during the last ten or twelve years. In Germany and France somewhat numerous contributions to its literature have been made during recent years; English and American medical writers have supplied but few. Gowers' *Treatise on Nervous Diseases*, however, contains a valuable discussion of the pathology of the affection; and Starr, in May, 1888, published in the *American Journal of the Medical Sciences* an interesting summary of its literature, pathology, and symptomatology. Debove and Déjerine (*Gaz. Hebdomadaire*, March 1 and 8, 1889) have furnished two of the most instructive recent papers in the form of carefully detailed records of two patients who were exhibited before one of the French medical societies.

The rapidity with which, in this age of medical enterprise, the literature of a subject grows is shown by the fact that five years ago Fürstner's collection of four cases, with autopsies, was quoted as a most valuable contribution to the subject, while in 1887 Bäumler had succeeded in collecting one hundred observations—sixty-six with autopsies and clinical

histories, twenty-five purely anatomical observations, and ten purely clinical cases.

Cases of syringomyelia vary greatly in symptomatology according to the size, location, and ramifications of the cavities within the spinal cord, as well as according to the congenital, stationary, or progressive character of the disease. A certain more or less regular syndrome is characteristic of the ordinary form of the affection. It is, in brief, one of atrophy, with paralysis irregularly distributed and progressing; peculiar disturbances of the sensations of pain and temperature, and marked vaso-motor and trophic disturbances, such as cyanosis, heat and flushing, eruptions, ulcerations, abscesses, changes in the excretion of sweat, and affections of the bones. The picture presented by Déjerine's patient was one of atrophic paralysis, which began at the age of twenty-five years, affecting the upper limbs and trunk; fibrillary contractions; scoliosis; no impairment of touch, but marked loss of sensibility to pain and temperature, particularly in the upper part of the trunk, the upper limbs, and the right half of the face; integrity of the special senses; abolition of the olecranon reflex; exaggeration of the knee-jerk; no marked trophic cutaneous disorders, but smoothness of the skin of the upper extremities; slight swelling of the inferior extremities of the radius and ulna; modifications in the secretions of sweat, and reactions of degeneration in certain muscles. Among the most striking disturbances present in this case, and commonly in syringomyelia, were those of sensibility; and to these, in consequence of their importance, it may be worth while to refer a little more in detail.

At the commencement of the affection, in 1848, the patient had noticed that his sensibility was defective. He could even then be touched by hot liquids without feeling it. In 1888, fifty years later, he showed the same troubles of sensibility, and thought that they had neither increased nor diminished. Tactile sensibility was absolutely normal in the trunk, the face and limbs. Sensibility to pain was much impaired at the level of the hands, forearm, arm, shoulders, and the upper part of the trunk before and behind, as far as a circular line passed under the breasts. A very sharp prick of a pin was not perceived as painful, although it seemed to the patient as if some one had touched him. Analgesia was also present over the entire right half of the head. When a needle was drawn across from right to left he felt a sensation of pain as soon as it approached

the median line. There was no retardation of the transmission of sensation. Touching him with a bottle filled with ice on the entire skin of the face, neck and throat, the upper limbs, shoulders, arms, forearms, and hands, he scarcely felt a sensation of cold. The lower limbs, the entire abdomen, and trunk above the circular line passing under the breasts were normally sensitive to cold. The patient, however, felt no difference of temperature between 30° and 50° in the same region. In the left face only, sensibility to heat was preserved, and a difference in temperature between 35° and 44° clearly perceived. Applying a bottle of water at 85° to the extremity of his fingers, he felt after some seconds a lively sensation of heat, but over the rest of the cutaneous surface mentioned water at the same temperature held on the skin for any length of time did not produce any sensation of heat.

The duration of syringomyelia is very variable; often it remains practically stationary for a long period. The case reported by Déjerine is striking, among other things, in the history of its long duration. Active symptoms of the malady first showed themselves in this patient in 1848; in 1852 he was examined by Duchenne; and Louis and Briquet, among other lights of medicine, later discussed this interesting but unfortunate patient. The examination upon which Déjerine's communication is chiefly founded was made by this physician in January, 1888. The patient is still living, fifty years after pronounced symptoms were first observed.

The diagnosis of a typical case of syringomyelia may now be regarded as not particularly difficult; but the frequently irregular character of its symptoms may cause it to be confounded with other affections, as progressive muscular atrophy, anterior poliomyelitis, particularly in the adult, amyotrophic lateral, disseminated or posterior spinal sclerosis, bulbar paralysis, hypertrophic internal pachymeningitis, and some forms of myelitis and neuritis. Cases of syringomyelia have been reported as instances of irregular forms of these various diseases. In syringomyelia, indeed, these affections do exist both in pathology and symptoms; there may be, for instance, ascending degeneration of some parts of the cord, and descending of others; the gray horns may be the seat of destructive disease; nerves may atrophy, and not rarely the nuclei of the nerves of the bulb are attacked. The point to be remembered in making a differentiation of syringomyelia is, that a certain special combination and order of develop-

ment of symptoms are characteristic of an affection whose essential pathology is abnormal holes in the spinal cord, and that the affections with which it is confused are usually the results of pressure or of extension of the original disease.

A curious point in diagnosis is the fact mentioned by Déjerine, that one of the most difficult affections to distinguish clearly from syringomyelia is anæsthetic leprosy, now generally regarded as a form of multiple neuritis, the clinical tableau presented by this disease being often, in brief, Aran Duchenne atrophy, analgesia, thermo-anæsthesia, and severe trophic affections. This error of diagnosis has been made in reported cases, and Déjerine regards it as almost inevitable in the absence of the prior manifestations and etiology of leprosy. Abnormal cavities in the cord sometimes exist without giving rise to active symptoms. Gowers says that this is particularly the case in young children.

The phenomena of syringomyelia have thrown some light on disputed problems in spinal localization. The clinical history of cases shows the frequent presence of trophic disorders of the bones, skin, nails, and bladder, as well as of the muscles. This is, so far as it goes, confirmatory of the localization of all trophic centres, except those for the muscles, in the central gray matter of the cord, and is corroborative, to a certain extent, of the view that the vesicular column of Clarke in the posterior horns is a region of vegetative centres; at any rate, in the central part of the gray matter of the cord, as stated by Starr, the vaso-motor and the trophic centres for the integument, finger-nails, and joints may be located. The existence of marked depression or absolute loss of the sensations of pain and temperature, with preservation of tactile sensibility, is corroborative of the difference in localization of the paths for the conduction of tactile sensibility and of those for pain and temperature. It shows the probable identity or close anatomical relations of the latter tracts, and the distinct anatomical situation of the former. The clinical and pathological observations on syringomyelia, however, are not necessarily confirmatory of the localization of the tracts for the transmission of pain and temperature in either the central gray matter or the interior portions of the posterior horns. They are more probably rather in the ascending lateral tracts, as placed by Gowers, but as the tracts for these sensations are constantly decussating, probably in the posterior commissure, the destruction of this decussation is

sufficient explanation of the changes in sensation produced by the disease.

From the very nature of the disease, treatment amounts to little or nothing. Hot baths have been used, and the various forms of treatment recommended for sclerosis, but with no permanent beneficial result.

THE Annual Meeting of the American Surgical Association will be held in Washington, D. C., on May 14th, 15th, and 16th, under the Presidency of Dr. David W. Cheever, of Boston. The following papers are announced to be read: On Sarcoma of Tonsil, by Dr. David W. Cheever, of Boston. On Hernia—a Comparison of the Various Methods Adopted for Its Radical Cure; Inviting Discussion of their Respective Merits, by Dr. C. H. Mastin, of Mobile. On the Surgical Treatment of Gangrenous Hernia, by Dr. M. H. Richardson, of Boston. On the Early Diagnosis of Morbid Growths, by Dr. J. Collins Warren, of Boston. What Forms of Peritonitis Demand Treatment by Surgical Measures? by Dr. J. Ewing Mears, of Philadelphia. On Free Division of the Capsule of the Kidney, for the Relief of Nephralgia, by Dr. L. McLane Tiffany, of Baltimore. On Digital Dilatation of the Pylorus, by Dr. J. M. Barton, of Philadelphia. Contribution to the History of Gunshot Wounds of the Intestines, by Dr. Theo. A. McGraw, of Detroit. On some Modifications in the Technique of Abdominal Surgery, Limiting the Use of the Ligature *En Masse*, by Dr. Lewis A. Stimson, of New York. A Successful Case of Nephrectomy for the Removal of Cancer of the Right Kidney, by Dr. John Homans, of Boston. Drainage and Drainage Tubes in their Application to the Treatment of Wounds, by Dr. Stephen H. Weeks, of Portland. Successful Ligation of the Primitive Carotids done Almost Simultaneously, in the Removal of Epithelial Cancer from the Base of the Tongue and Fauces, by Dr. L. C. Lane, of San Francisco. On Injuries to the Axillary Vessels, by Dr. Randolph Winslow, of Baltimore. On Acute Infectious Osteomyelitis and Periostitis, by Dr. Herman Mynter, of Buffalo.

THE American Public Health Association will hold its next meeting in Brooklyn, N. Y., beginning October 22d. In addition to the regular scientific business, which usually consumes the entire time of the meeting, there will be a carefully organized annex for the exhibition of sanitary appliances and life-saving apparatus. It is also proposed to give

one afternoon to an inspection of the quarantine stations of New York harbor. Dr. J. H. Raymond, of the Hoagland Laboratory, Brooklyn, is Chairman of the Local Committee.

NEXT Tuesday the Johns Hopkins Hospital, at Baltimore, will be formally opened with appropriate ceremonies, including addresses by President Gilman and Dr. J. S. Billings. The building is the finest of its kind on this continent, and it is doubtful if it has a superior anywhere, and neither pains nor expense have been spared to make it in all respects a model hospital, as will be seen by the full description which we give of it in another column.

AT their recent commencements the degree of Doctor of Medicine was conferred on graduates as follows:

University of Pennsylvania	124
Starling Med. College, Columbus, O.	28
Columbus, O., Med. College	22
Kansas City Med. College	18
University of Kansas City	15
Gross Medical College, Denver	10
Niagara University, Buffalo	9
University of Denver	8
Colorado State University	1

THE Faculty of the University of Vienna has conferred upon Dr. J. S. Billings the degree of Doctor of Medicine *causa honoris*.

ON the occasion of his departure for his new field of labor at Johns Hopkins Hospital, Dr. Osler's medical friends in Philadelphia will give him this evening a farewell dinner at the Hotel Bellevue.

DR. ROBERT ABBE, of New York, will read a paper before the Philadelphia County Medical Society on the 8th of May, on "Intestinal Anastomosis," giving the results of his experience, not only with Senn's plates, but of his own proposed substitute of catgut rings, which we noticed editorially in our issue of April 13th. The paper will be followed by a discussion.

DR. HARVEY LINDSLY, one of the oldest physicians in Washington, died in that city on Sunday afternoon, at the age of eighty-five years, from exhaustion, due to old age.

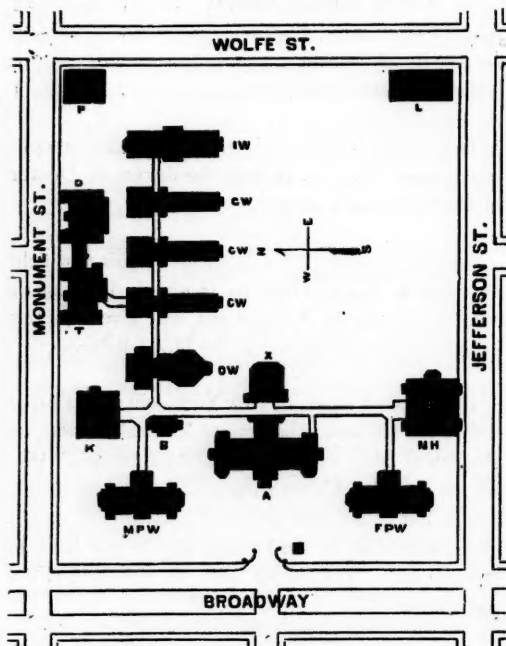
Dr. Lindsly was born in Morris County, N. J., January 11, 1804. He graduated at Princeton Col-

lege and took his degree in medicine at Washington in 1828 and then entered upon and continued in active practice in that city until 1872, when he retired. He was elected to the Presidency of the American Medical Association at its meeting in Washington in 1858. He was at one time Professor of Obstetrics in the National Medical College, and afterward Professor of the Theory and Practice of Medicine in the same school, and was for a long time President of the Board of Health of Washington City. He contributed a number of valuable papers to the *American Journal of Medical Sciences*, as well as to several magazines in general literature. He leaves a widow and four daughters.

SPECIAL ARTICLE.

THE JOHNS HOPKINS HOSPITAL OF BALTIMORE.

THE Johns Hopkins Hospital will be formally opened next Tuesday. The grounds of the Hospital include four entire blocks, containing about fourteen acres of ground, having a frontage on Broadway of 709 feet and extending back 856 feet. The buildings are seventeen in number and the roof area covers over four acres.



Block Plan of Johns Hopkins Hospital.

- | | |
|-----------------------------|---------------------------|
| A.—Administration Building. | O.W.—Octagon Ward. |
| X.—Apothecary's Building. | C.W.—Common Ward. |
| M.P.W.—Male Pay-ward. | I.W.—Isolating Ward. |
| F.P.W.—Female Pay-ward. | T.—Amphitheatre. |
| N.H.—Nurses' Home. | D.—Dispensary. |
| K.—Kitchen. | P.—Pathological Building. |
| B.—Bath House. | L.—Laundry. |

THE DESIGN OF THE HOSPITAL.

The Hospital has been building about thirteen years, and shares with the University the distinction of being a monument to the philanthropy and generosity of the late Johns Hopkins. The endowment is over \$3,000,000, invested in substantial interest-paying securities, and only the income has been used in the construction of the buildings. With the exception of the Laundry, Autopsy Building, Chapel and Green-house, all the buildings which are of brick with trimmings of dark blue stone, are connected by covered corridors one story high. The top of this corridor forms an open terrace-walk on a level with the ward floors. The objects of the hospital, as indicated by its founder, were threefold: The proper care of the indigent sick; the education of trained nurses and incidentally of physicians; the promotion of discovery in medical science and the promulgation of the same for the general good. To these might also be added the outdoor relief feature, on which the founder laid not a little stress, and which will be among the first to which the officers of the institution will bend their energies in order to popularize the Hospital.

The medical school will not be a part of the Hospital, but of the University, though the two will work in harmony, and the students of this department will receive their practical experience within its walls.

THE GENERAL PLAN.

The first problem which engaged the attention of the trustees was the selection of a general system on which the buildings were to be erected. It is generally conceded that a village of cottages, with commodious arrangements, large, airy apartments given up to the sick, with an adequate supply of nurses, and of medical and surgical skill, would show a smaller average mortality than the more crowded ward system, just as villages are, other things being equal, more healthy than large towns. But this plan is hardly practicable for large cities, though the one-story barrack system, destructible in whole or part, which was so successfully used in the civil war, resembles it in many of its excellences. The barrack system was not found to give all the advantages that could be gained from what is known as the pavilion system employed in the construction of the present institution. The greatest objection made against placing one ward above another is based on the increased facility for the transmission of foul, contaminated air from one floor to another, and the impossibility of giving as good ventilation to the lower as to the upper floors. The plan, therefore, finally adopted in constructing this building is generally to have but one floor in a pavilion devoted to a ward.

All the pavilions have a basement nine feet high, raised above ground, laid with a granolithic flooring, containing only the heating and ventilating apparatus, and connected directly with a closed corridor ten feet wide, which communicates directly with all save two buildings, the dead-house and laundry. With the exception of the pay wards, none of the pavilions can be entered from the closed corridor except by first passing through the open air. Thus do all the floors on which the sick wards are situated communicate directly with a long, flat terraced roof on the top of the corridors, surrounded by

railings, which serves for exercise of the patients and their general communication in fair weather, and likewise affords a free circulation of air all around the wards left unobstructed on what is termed the first floor of the system.

It has been the plan of the founder to give each patient in the hospital 100 feet of floor space, in accordance with the recognized necessity of providing ample breathing space, and avoiding all the dangers common to hospitals, and to provide each bed with eight feet of wall space. It is the expressed will of the founder that not more than 400 sick persons be accommodated at any one time in the institution, and in the sixteen buildings thus far constructed the whole number of beds provided in the wards is not more than 224, not including seven in the accident wards, only to be temporarily occupied by patients undergoing treatment in that building. In the pay and isolating wards separate rooms are provided for the patients, but in the three kinds of free pavilions, the common octagon wards, beds are arranged in one room, though there are in each four separated rooms for certain cases, where special modifications of light and temperature are required.

THE COMMON WARDS.

The common wards are rectangular in form, ninety-one feet long by thirty-two feet broad, with twelve beds arranged on either side of its length, at least one window being placed between each two. For the octagonal ward system it is claimed that the beds being placed at exactly equal distances from each other and from the fireplaces and ventilators, that the difficulty of unequal heating and stagnant air spaces is avoided, but moreover that more sides of the ward are entirely free for the largest amount of sunlight and heat than by any other form. Some one part of the room is always lit up by the direct rays of the sun during some part of the day. One somewhat serious objection raised against this system is that it does not allow the attendants a fair view of every patient at the same time, as a large ventilating shaft occupies the centre of the room. But this has to be waived in consideration of its supposed greater value. It has also been urged that the sick-room does not require the watching of a penal institution. Each of the two octagonal wards will have two stories.

THE ISOLATING WARD.

The isolating ward is for the treatment of patients suffering from contagious diseases. Each person is assigned a separate apartment, whose ventilation is made through an individual shaft.

HEATING AND VENTILATION.

The problem of heating is inseparably connected with that of ventilation in hospitals, and the two were considered together in maturing the plans. The open fireplace has a conspicuous place in all the buildings where a room occupied by not more than two persons is to be heated, because of the especially agreeable effects of direct radiant heat and the cheerful appearance such fires give, and the ready means they afford of providing a rapid exit for the effete organic matter of the room. Such heating is, however, very wasteful in proportion to the heat thrown out, and will not answer for wards because of the unequal heating of objects situated at varying dis-

tances from it; they also increase labor, and are dangerous in that smoke and obnoxious gases are at any time likely to be driven from them into the wards. In the Johns Hopkins Hospital one of these open hearths is placed in every individual sick room to furnish ventilation, but to be kindled only in case the other means of heating fail, or before the large furnaces have been lit for the season. All the advantages furnished by the open grate can be obtained from the use of hot water under low pressure in coils. A very simple device, an automatic switch-damper, is applied in numerous parts of each sick room, as well as in nearly all the rooms of the hospital, to admit fresh air. All that is seen of the arrangement is a slightly altered form of a heat register, placed in the wall not far from the floor, in especially great number in the wards. The apparatus for mixing the air is placed in the basement. A certain well-defined volume of air is constantly entering through this register, an amount which the attendants cannot control, but which has been measured by experts, so as, with other arrangements in the wards, to cause a complete renewal of the air every fifteen or twenty minutes. When on damp or sultry days the air is sluggish in its upward movements a fan arrangement in the basement of each building forces it through the switch-damper.

It is proposed to place in the medical director's room in the Administration Building an electrical device called a "telemeter," by which he can see at a glance the temperature of various parts of each ward in the entire hospital, and if the heat be too great or too little he can order its modulation by decreasing or increasing the amount of air in a given switch-damper that is to pass around the coils.

For the removal of the vitiated gases there are several devices employed in the same ward, including, besides the fireplace heaters, a coil of hot-water pipes near the top of the shaft, which creates a constant upward current of some little velocity from the rooms below. In the central hall of each pavilion there is in addition an enormous shaft for ventilating each entire floor. At night when the products of combustion of the gas jets are to be removed, in the morning when all the wards are to be thoroughly flushed, and in summer that this dead residuum may be removed, ventilators at the top of the room are opened. The pay wards have individual rooms, with all the features of switch-damper ventilation below and above. In the Nurses' Home is exhibited an anemometer to measure the velocity of the current upward into the ventilating shaft, which rapid egress is necessary to replenish the pure air. The attics above the wards have also in every instance the best of ventilation.

PLUMBING.

Throughout all the buildings the pipes are exposed, so that at a moment's notice they can be examined and the source of any difficulty remedied at once. No sewer is allowed to pass directly under any building, for the waste water drains directly through special pipes down Jefferson Street into the Harford Run, and fecal matter flows through a large outlet, which is to be frequently flushed with large quantities of fresh water, into an immense well under the Nurses' Home, which is ventilated by a stack one hundred and twenty feet high.

No mouldings are allowed on the furniture or wood-work in any of the buildings lest shrinkage cause cracks

and fissures for the lodgement of disease germs. The walls are all joined in segments of circles and not in right angles, the washboard joining the floor, and the wall is similarly curved that a damp rag may allow no small fraction of an inch to go uncleansed. For a similar reason all the fittings and joints are tight, and the furniture is not carved to any extent. The floors are of well-seasoned hard yellow pine, well oiled to prevent indentation, separation at junctures, and the absorption by the wood of anything that may be spilt upon it. Rugs and druggets will not be allowed on the floors to act as sponges for imbibing and retaining bacteria of disease. In some cases, for similar reasons, granolithic floors are used where there is likely to be slopping, and soapstone walls where cracks would be likely to occur in the ordinarily plastered walls, as in the kitchen.

Extreme cleanliness is to be insisted upon in the attendants' rooms and storage-rooms. No closets with doors or drawers are furnished, that nothing soiled or improperly cleansed may be concealed.

THE OCTAGON WARDS.

The common octagon wards are placed in the southern part of each building to procure as much invigorating sunlight as possible, while at the far end (south) of each such ward is a sun-bath, where the patients may be exposed to the beneficent rays. Still the number of windows in each ward is not unnecessarily increased, for that would result in producing ill-comfort in the patients without corresponding benefit. Four separate rooms are provided in each ward, where special modifications of light and temperature desirable in the treatment of the case may be provided. In case the disease prove a dangerous one, of course the ward is emptied and the bedding and clothes thoroughly disinfected and purified, or even burned. It is hoped that one bed in each ward may always be left unoccupied, and even, if possible, one entire ward left vacated. These buildings are two stories high, with basement.

ADMINISTRATION BUILDING.

The administration building is three stories high; the upper stories are divided into rooms for resident medical officers and students. The medical director's room will contain, besides the telemeter, annunciators, and speaking-tubes to all the buildings, a pneumatic clock, in order to provide precisely the same time in all parts of the building, to regulate exactly the administering of medicines and baths. The board room is provided with the original set of furniture, books, and fittings of Johns Hopkins's library. The resident physicians and resident students' separate bed and dining-rooms and reading-rooms are in this building. A superabundance of bath-rooms is provided, in order to induce very frequent cleansing and change of linen on the part of the medical attendants. Separated from the corridor and administration building by an open-air bridge, in order to keep out the disagreeable odors from the living rooms, is the apothecaries' building, three stories high. The indoor dispensary is located here. The two upper floors are occupied with rooms for female servants.

BATH HOUSE.

In another annex are the baths of the hospital, where, if possible, the patients are induced to come. If unable

to leave their beds, a complete portable bathtub is brought to the bedside. Turkish, Russian, mercury, vapor, electric, needle, plunge, and other bath-rooms are provided here for all who have them prescribed for them. Separate bath buildings are provided for males and females.

THE KITCHEN.

This building is three stories high besides the cellar and boiler vaults. The upper story contains dining-rooms for employees and sleeping-rooms for cooks. The entrance to the kitchen is by the closed corridor, and, therefore, on the floor below that to the sick wards, into which its odors cannot penetrate. All modern conveniences of steam apparatus are provided for cooking, and large hoods for carrying off the vapors to the flues. All the non-commissioned officers dine here. It is provided that all the garbage and waste must be at once carried out into the open air and dumped into a chute to be carried away. All the viands for the patients are carried in felt boxes, to be kept hot by this simple device, to the wards some distance off. In each ward there is, however, a nurses' kitchen, with steam tables to prepare any simple dish that may be required for an emergency or during the night.

THE BOILER-HOUSE.

The boiler-house is beneath the surface of Monument street, and is reached from the sub-cellar of the kitchen building. It contains four hot-water and three steam boilers, the last communicating directly through a tunnel to the amphitheatre and dispensary building, which they heat. They also provide steam for the boilers of the kitchen and steaming tables throughout the buildings. The hot-water boilers heat the switch-dampers of all the buildings and tops of the ventilating shafts. Two enormous filters purify all the water that enters the institution, even that which goes to the boilers. Pumps in this boiler-house raise filtered water to tanks capable of holding 100,000 gallons in the top of the administration building. This is held as a reserve in case of an accident to the water main feeding the institution, or the breaking down of the city's reservoirs.

THE PAY WARDS.

The male pay ward is at the corner of Monument Street and Broadway. The walls are neatly painted in oil, and the furnishings are only a little better than in the common wards. An iron bedstead, with brass knobs, three chairs, a wardrobe, washstand and bureau, almost the same as in the officers' rooms, constitute the furniture. The building may be entered from the connecting corridor, but the patients' rooms cannot be reached save by passing through the central hall, where is the enormous ventilating shaft. A noticeable feature everywhere is the absence of patients' elevators, for it is believed that more comfort will be insured by raising the sick on stretchers up broad stairs with an easy rise than by subjecting them to the shock of sudden stoppages on the elevator. Fear of the rise of contaminated air through the elevator hatches also assisted in deciding on this feature. The female pay ward, at the other end of Broadway, is rapidly approaching completion, and will be ready for occupancy by the end of the year.

THE ISOLATING WARDS.

The isolating wards are for patients suffering with contagious diseases, and can only be entered by double doors from a long, high central corridor. Three rooms have the Winans perforated floor for producing an increased heat for special cases.

THE AMPHITHEATRE.

The amphitheatre building, where surgical operations will be conducted, contains seats for 200 students. Lecture-rooms, accident reception-room for patients, consulting-room, etherizing-room for preparation of patients, wards, nurses' apartments, etc., find their appropriate place in this building. There are also well-equipped rooms in which patients can recover from the effects of their operation. A movable crane, from which is suspended a strap and stirrup, is a device by which the patient can move himself when restless, from one side of the bed to another. This may be adopted in the other wards.

OUTDOOR DISPENSARY.

An adjoining building is for the outdoor dispensary. It contains a very large central waiting-room for the beneficiaries, surrounded by eleven physicians' and surgeons' rooms; there is also an apothecary's dispensing table. Baths, water-closets, etc. complete the structure.

THE NURSES' HOME.

The nurses' home fronts on Jefferson Street, and is four stories in height. It stands some distance from the end of the closed corridor, thus necessitating a passage through the open air of these attendants in going to and from the wards, and securing the home immunity from contagion. Parlors and reception-rooms, library and reading-rooms, a main hall, eight sleeping apartments for nurses, are on the first floor. Forty-four sleeping rooms for nurse students, one for each, are on the second and third floors, with all necessary conveniences. It also contains a training kitchen, a dining-room for the nurses, and a lecture-room.

THE LAUNDRY.

The laundry, a one-story building, completely isolated from the rest of the group, stands at the corner of Jefferson and Wolfe Streets, and plays an important part in the institution. Its disagreeable vapors render its complete isolation necessary. Tubs, boilers, rotary washing machines, centrifugal wringing apparatus, and other modern devices for laundrying clothes are provided. The disinfecting chamber is in the basement of this building. The roof is flat, and is to be used for sunning the clothes.

THE DEAD-HOUSE.

The autopsy building, near the corner of Monument and Wolfe Streets, now used by the pathological laboratory of the University, also stands isolated for an obvious good cause. It contains on its first floor an amphitheatre, where fifty students standing, after the plan adopted in Berlin and Strasburg, can view an autopsy. There is also an air-tight morgue-room, a waiting-room for funerals, and a pathological laboratory, all on the first floor. The upper story contains rooms for histological research and for photomicrography and a small museum. The basement will probably have a small crematorium in which to consume refuse animal matter.

GENERAL OBSERVATIONS.

Three more common wards, an octagonal ward and an isolating ward, all on the south side, a chapel and a green-house remain to be constructed. There will, moreover, be extensive gardens.

For the above description we are largely indebted to the columns of the *Baltimore Sun*.

REVIEWS.

THE PATHOLOGY, CLINICAL HISTORY, AND DIAGNOSIS OF AFFECTIONS OF THE MEDIASTINUM OTHER THAN THOSE OF THE HEART AND AORTA: Being an essay to which was awarded the Fothergillian medal of the Medical Society of London, March, 1888. By HOBART AMORY HARE, B.Sc., M.D. (Univ. of Pa.), Demonstrator of Therapeutics and Instructor in Physical Diagnosis in the University of Pennsylvania, etc. 8vo., pp. 130. Philadelphia: P. Blakiston, Son & Co., 1889.

DR. HARE in writing this book on mediastinal disease has well earned the Fothergillian medal, for he has rendered good service to the medical profession not only in calling attention to a subject of vast importance, but also for resuscitating it from an oblivion into which it was driven by undeserved neglect. He gives here the tabulated record of five hundred and twenty cases of mediastinal disease other than those of the heart and aorta, distributed as follows: Cancer, 134; sarcoma, 98; abscess, 115; non-suppurative inflammation, 16; lymphoma, 21; fibroma, 7; hæmatoma, 6; dermoid cysts, 11; hydatid cysts, 8; various other diseases, 104; and nearly every one of these classes is discussed in relation to its pathology, etiology, diagnosis, and treatment.

The study of mediastinal disease, to say the least, is of as much importance as that of any other affection within the thoracic cavity, partly because it is of more difficult recognition, and partly because it bears a most essential relation to diseases of neighboring organs, notably to those of the respiratory passages and the heart. There can be no doubt that many diseases of the larynx, lungs, and heart, which are commonly attributed to local causes in these organs, will find a solution of their origin in the pressure of a mediastinal lymphoma, fibroma, etc., on the recurrent laryngeal or on the pneumogastric nerves, the pulmonary, or on the cardiac plexuses. This is especially true of such affections which invade the posterior mediastinal space.

We congratulate the author on the happy selection of his subject, and on the faithful manner in which he worked it out, as well as on the intelligent appreciation which it is receiving from the profession.

SOCIETY PROCEEDINGS.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON NEUROLOGY.

LONDON CARTER GRAY, M.D., CHAIRMAN.

Stated Meeting, April 12, 1889.

NERVOUS SYMPTOMS ARISING FROM OVARIAN DISEASE, AND THEIR TREATMENT.

DR. CHARLES L. DANA, in opening a discussion on this subject, said that in these cases the gynecologist had

the advantage over the neurologist in the fact that he not only observed the symptoms but also saw the ovaries themselves. The term ovarian irritation he took to imply an irritating organ, and not an irritated organ, as in cardiac irritation, for instance, when the heart was irritated by reflex nervous influences. The question at issue must be confined to ovarian irritation, if there was such a thing. The designation was hardly correct, however, since the uterus and the tubes were appendages of the ovaries and might share in the trouble.

Then, a point arises as to the anatomical and physiological basis of ovarian irritation. In many cases there might not be any anatomical change in the organ, but merely a physiological or functional one. By far the most frequent change present, however, was chronic hyperæmia or chronic ovaritis. This was so important a condition that we might, for the most part, dismiss from consideration the parenchymatous changes resulting in the formation of cysts, etc. It was a well-recognized fact that such changes were not accompanied, as a rule, by the reflex nervous symptoms that often characterized the condition of chronic hyperæmia or chronic ovaritis.

To the latter it had been customary to refer a great variety of nervous affections, such as vaso-motor disorders, cardiac disorders, hysteria, epilepsy, mania, melancholia, chorea, neuralgic states, spinal irritation, sciatica, migraine, and irritability of the bladder and rectum. The question, therefore, arises, How far are such conditions really attributable to the ovaries? In his own opinion, he said, if the ovaries were anatomically healthy they could not produce these reflex troubles, and chronic ovarian hyperæmia and chronic ovaritis could not produce any of the severe constitutional neuroses alone. He also believed that the latter had much less effect in the causation of such troubles than was generally supposed, and that the removal of the ovaries did not, as a rule, remove grave neuroses, such as chorea, epilepsy, melancholia, and intractable neuralgias. About one-half of such troubles usually occurred in women whose ovaries were perfectly healthy; while in those whose ovaries were really seriously diseased none of these neurotic symptoms manifested themselves.

Batley, of Georgia, had discovered a peculiar form of epilepsy which he designated as ovarian epilepsy, and had reported ten cases of it in which he removed the ovaries, with the result of a cure in eighty per cent. of the cases. It was extremely probable, however, that the greater number of these cases were simply instances of convulsive hysteria, which was likely to get well under almost any course of treatment. It was certainly a fact that no such disease as ovarian epilepsy was recognized by neurologists, and neither Gowers nor any other author who had written systematic treatises on epilepsy made any mention of it. Of so-called ovarian mania, Batley had reported four cases, with one cure, and Goodell five cases, with four cures, from removal of the ovaries. They were, no doubt, instances of hysterical insania, and according to Clouston, the proportion of cures in this affection under any treatment amounted to sixty per cent.

As the greater number of such cases were hysterical in character, the percentage of cures by operative procedure did not present a very brilliant result, and it was, moreover, a fact that in a very large number of hysterical women there was no appreciable disease of the

ovaries or uterus whatever. In hysteria the mind of the patient was apt to become specially directed to certain points in the system, and it was perfectly natural that many patients should come to regard the pelvic organs as the source of their troubles; so that the removal of the ovaries would at least have a very strong moral effect. On the whole, therefore, it was his opinion that the ovaries by themselves occupy a very subordinate place in the production of neuroses. Although an inflamed ovary might cause considerable neurotic trouble, the same might be true of any other process of disease in the system, and hysteria was essentially a brain affection.

DR. W. GILL WYLIE said that he was substantially in accord with the main points advanced by Dr. Dana. He was inclined to think that the influence of the ovaries in producing reflex nervous symptoms has been over-rated. Without doubt an inflamed or diseased ovary will cause marked reflex symptoms, but much depends upon the condition and inherited tendencies of the whole nervous system of the individual. What he meant, he said, was this: that the same disease of the ovary in different women will cause very different symptoms. In a delicate, imperfectly developed woman a diseased ovary may make a confirmed invalid and cause numerous reflex symptoms, while a well-developed woman, with a normal, well-balanced nervous system, may carry about a diseased ovary without ever being confined to her room, and not have any definite reflex symptoms.

The imperfectly developed woman is almost certain to have an imperfectly developed uterus and ovaries, and is, therefore, much more liable to have uterine and ovarian disease than the average woman, and it must not be forgotten that imperfectly developed women are also prone to have a diseased or abnormal nervous system. He was convinced that it is often very difficult to separate the symptoms actually caused by disease of the ovaries from those due to an abnormal or imperfectly developed nervous organism. He has also found that chronic uterine or ovarian disease is nearly always complicated with a disease or at least an abnormal condition of the rectum or colon, and he had made some very brilliant cures of cases of supposed uterine or ovarian disease by dilating the anus and removing the reflex disturbances caused by an anal pressure. In other cases he has found the colon dilated and sacculated (being loaded with round, hard scybalæ), and this condition has been at the bottom of a case of melancholia or hypochondriasis supposed to be due to disease of the left ovary.

An inflamed ovary will cause reflex symptoms, especially for some days preceding menstruation, on account of the increased vascular tension existing at that time. An ovary imprisoned by a firm peritoneal exudation will cause unusual reflex symptoms and local pain, due to the resistance offered to the maturing ovum swelling under the peritoneal adhesions, or to the occluded Fallopian tube and abnormal ovulation resulting in cystic degeneration and the swelling cysts stretching the peritoneal adhesions. He has seen several cases where the reflex symptoms amounted almost to insanity, caused, as was shown when the abdomen was opened, by a thickening and hardening of the ovarian tissue, resulting in the production of a very great increase of the fibroid tissue, and, in some cases, of small nodules or fibroid

tumors on or in the ovary. In this class of cases the patients suffer intense local pain, and just before menstruation become very irritable and excitable to an extreme degree.

As to treatment, in all cases where the reflex symptoms or the nervous symptoms are marked, he invariably gets the advice of a neurologist before resorting to active treatment, so as to avoid the mistake of exciting and bringing to a climax some commencing or undeveloped disease of the nervous system. Then, before attempting to reach a positive diagnosis he makes it a rule to keep the patient for some weeks under his own observation, unless the symptoms demand immediate surgical interference. Also, before deciding whether an ovary is enlarged or decreased, he thinks it wise to insist upon an examination of the patient under ether. If one can plainly make out disease of the ovaries, indicated by fixation or enlargement—that is, permanent enlargement, the organ being as large as a small hen's egg—and if the symptoms are not relieved or rendered latent by improving the general health of the patient, or by the use of means to improve the local circulation, such as counter-irritants, etc., then laparotomy should be considered, if the subjective symptoms warrant it.

But unless actual physical disease can be plainly made out by local examination under ether, he would not advise laparotomy until every other means, in the hands of several different physicians, have been faithfully tried. He said he was sure that in many cases where the ovaries have been removed, if the influence of imperfect development had been recognized, and a simple stimulating local treatment, combined with careful attention to improving the general condition, had been properly carried out and persisted in, the patients would have saved their ovaries and regained their health as completely, if not more completely, as by castration. In these cases he said he was accustomed to apply cotton pledgets soaked in a solution of boro-glyceride and glycerine twice a week, to dilate the uterine canal once a week between the menstrual periods, and make a stimulating intra-uterine application. In some cases he applied electricity, and in others put in a drainage plug for a week every three or four months, etc.

When there was distinct nervous disease he did not think much could be accomplished by the removal of the ovaries. Personally he had performed the operation in but five cases, and only one of the patients was cured, while three were not at all benefited.

DR. B. SACHS said it would seem that both neurologists and gynecologists were of one opinion in regard to this matter. At the present day he did not suppose that any of those present would think of removing the ovaries in cases of chronic neurosis, such as epilepsy or chorea. He referred to cases of epilepsy in which this was done, and said that even in a case of hysterio-epilepsy which had come under his observation the ovaries were found to be perfectly normal after removal. The question that all would like to have determined was: What effect has disease of the ovaries on chronic hysteria, and is the removal of these organs justifiable in this condition or not? As far as he could judge, if there was considerable enlargement of the organs, or they were in a state of chronic inflammation, this would seem to afford ground for their removal. But in the majority of cases of hysteria such conditions did not exist, and the ques-

tion, therefore, arose: Are we justified in removing a normal ovary? Where there was ovarian hyperæsthesia there was likely to be a general hyperæsthetic condition of the system, and by the extirpation of the ovaries we simply removed one focus of trouble, without in any way affecting the others that remained.

He should like to see statistics furnished which would show in cases of true hysteria how many were cured by the removal of the ovaries when diseased, and how many by the removal of the ovaries when normal. His own experience went to show that after the removal of the ovaries the symptoms always return after a longer or shorter period of time.

DR. M. P. JACOBI spoke of the necessity of distinguishing between those cases which have their origin in the ovarian region and those which arose in simply an hallucination of the brain, but referred by the patient to the pelvic organs. In the constitutional hysteria in which the most pronounced symptoms were developed, the patients were, as a rule, entirely free from ovarian or uterine disease, and in such cases any effect that operative interference could have would be due simply to the mental impression made upon the patient. It was her opinion that ovaritis never occurs as a primary disease, but invariably originates in a fundal endometritis. On this account she thought it exceedingly important to distinguish between the symptoms due to ovarian and those due to uterine disease, and to bear in mind the fact that disease of the uterus and the ovaries often existed together.

She believed that the symptoms of chronic nausea and chronic tympanites were especially characteristic of lesions of the utero-ovarian nerve. All the filaments of the ovarian nerves had been traced to terminations in the bloodvessels, and hence, primarily, there would be vaso-motor disturbances. After some remarks on the influence of the sympathetic system, she said that the English authorities especially had long recognized ovarian dyspepsia, which was atonic in character, as among the remote effects, and in the treatment of this condition Tait had applied strong counter-irritation to the region of the ovary with success. In conclusion, she related the case of a patient suffering from very severe ovarian dyspepsia who was completely relieved by the application of a strong current of electricity, one electrode being placed over the lumbar vertebrae and the other over the ovarian region in the hypogastrium.

DR. W. R. BIRDSALL said that it seemed to him that the conclusion expressed by Dr. Wylie in regard to operative interference was correct, and he fully agreed with him that the removal of the ovaries was not called for unless active disease of these organs could be demonstrated, except in special cases where all other means of treatment had been faithfully and persistently tried. But even in such cases the results thus far accomplished had not been such as to encourage the resort to operation, and he believed that the more evidence accumulated the less frequently would the ovaries be removed. There was a class of neuroses in which, if one chain of evidence of symptoms was relieved by a special course of treatment, trouble would sooner or later break out in another part of the system. Thus, he knew of patients who had successively had their nasal septa straightened, their ocular muscles cut, their uteri cured of malpositions, and their bladders and rectums relieved of irritation. All these methods of treatment had improved the

condition of the patient for the time being, but scarcely had one set of symptoms been controlled by the measures employed when a new set would become developed. At the same time, he believed that whenever there was distinct local disease the removal or relief of this source of irritation was of decided benefit; but he thought that the mistake was too often made of considering these local lesions as the primary cause of trouble, which was really to be referred to the general neurotic condition of the patient.

He agreed with Dr. Jacobi that the uterine disease was frequently associated with that of the ovaries, and in this connection he mentioned the case of a patient, a married woman, who at times was subject to a sinking sensation amounting almost to unconsciousness, which she referred to the ovarian region, the stomach, and down the thigh. On making a physical examination he found anteversion of the uterus and prolapse of the ovaries. As soon as the displaced ovary was touched, she complained of the sinking sensation mentioned, and he felt convinced that a large part of the patient's nervous trouble was due to the abnormal local condition present. He, therefore, called in a gynecologist, who, after replacing the uterus put in a pessary, which also had the effect of keeping the ovary up, and after this she had no further trouble. On the other hand, he had seen many instances in which attacks of this kind were not relieved by local treatment.

In cases in which the ovaries are bound down by adhesions the pain is often extreme and the nervous symptoms quite marked. There is another class of cases, of which he had not seen more than two or three instances, where the pain was as persistent after the removal of the ovaries as before; and he believed it to be a fact that the removal of a painful organ does not necessarily cure a neuralgic pain long established. This was shown by the not infrequent failure of resection of nerves to afford relief in chronic neuralgias; and hence, if neuritis was the cause of the trouble, the removal of the ovary might not effect a cure. There might indeed already be present disease of cerebral origin. In conclusion, he said that he believed there were two extremes to this question. No doubt many ovaries had been removed which had better been left; but at the same time he thought that in the future cases would sometimes occur in which the removal of the ovaries would be attended with benefit.

DR. H. T. HANKS said that as a practical gynecologist he would take the standpoint of Dr. Wylie. As he had stated, there were some conditions of the ovary which could be relieved by patient and long-continued local treatment; and electricity was often very beneficial in this connection. When the ovaries were bound down by adhesions ovulation took place with the greatest difficulty, and much suffering resulted to the patient; and in cases where removal of the organs was not deemed advisable great relief could often be afforded by the application of electricity just previous to the menstrual period. If we were able to determine just what condition was present, great relief could sometimes be secured by very simple means. Having referred to one or two illustrative cases, he said that in view of the very large number of laparotomies which had now been performed, he thought gynecologists ought to be able to come to a positive conclusion in almost every case presented to

them whether the ovaries ought to be removed or not. When a decidedly diseased ovary which was hypertrophied or prolapsed was met with, and this was attended by the symptoms usually characteristic of such a condition, he thought that the operation should be performed.

DR. H. J. BOLDT desired to take the same standpoint as most of the other speakers, and he related the case of a bed-ridden patient whose ovaries he removed in the hope that she would improve. She did improve for a time after the operation; but later all the symptoms came back as bad as before. In hystero-epilepsy he thought proper cases for operation would be those in which, in spite of all other treatment, the attacks continued to increase in frequency. In two cases of his own of this kind, however, the removal of the ovaries was not attended with success. There was improvement for a time, and then the attacks returned as bad as ever. His experience had, therefore, led him to the opinion that in any case where the ovaries appear to be normal, no matter how severe the nervous symptoms may be, the removal of the ovaries will not afford relief. On the other hand, in cases where the ovaries were bound down by firm adhesions, such as those referred to by Dr. Birdsall, he would expect great benefit to be derived from the operation. In some cases of nervous trouble the symptoms were decidedly worse after operation than they had been before, and he thought that the ovaries should never be removed until all other means of treatment had been exhausted. In addition to electricity, massage often proved of very great benefit, and he thought this means was not resorted to as frequently as it ought to be.

DR. M. D. FIELD said that his experience as an examiner in lunacy led him to the belief that many women who have had their ovaries removed are in our insane asylums to-day. A considerable number of the cases which he had seen had come directly from Bellevue Hospital, where the operation had been performed. He had no doubt, however, that many of them had a predisposition to insanity before the removal of their ovaries, and that the shock of the operation or the effect of etherization brought on the mental trouble.

DR. GRAY said it seemed to him that the whole question of reflex nervous symptoms was intimately connected with the growth of the various specialties in the last few years, and that unless specialists had some competent knowledge of the nervous system and its pathology they were apt to get into all sorts of vagaries. If one desired to relieve an epilepsy, for instance, it was necessary that he should understand what epilepsy does when left to itself. Almost any kind of treatment would often do good for a time in this affection; and the same was true of hystero-epilepsy and hysteria. The trouble was that the specialists did not study the intrinsic history of the disease. Reflex disturbances coming from the viscera were almost always suspicious. The involuntary nervous system constituted an element of great importance, as Dr. Jacobi had pointed out, and it was necessary to understand clearly the difference between the voluntary and the involuntary nervous systems. While, as a rule, he was very sceptical about the cure of epilepsy by gynecological operations, he had seen two cases in which the relief of a vaginitis which was present relieved the epilepsy.

DR. WYLIE said that where no ovarian disease could

be detected he would operate only in extreme cases in which the patients were bed-ridden and all other means had failed to give relief. As a rule, he would remove the ovaries only when these organs were clearly demonstrated to be seriously diseased. As to the cases referred to by Dr. Field, the patients were no doubt exceedingly nervous to begin with. In one case which Dr. Dana had seen in consultation, the patient was already insane before he operated. He removed the tubes and ovaries on account of the presence of a well marked pyosalpinx, and the operation was followed by considerable amelioration in the condition of the patient. If insanity were so common a result of removal of the ovaries as Dr. Field would seem to intimate, he thought the cases should all be published with complete histories.

DR. DANA said that the opinion which he had entertained up to the present occasion, as derived from recent works on gynecology and current medical literature, was that gynecologists were accustomed to resort very frequently to removal of the ovaries for the relief of these nervous troubles; and he was very glad to find that the sentiments expressed in the discussion to-night were adverse to frequent operative interference, and, therefore, considerably in advance of the views held of late by many in the profession, as expressed in text-books and medical journals.

SECTION ON THEORY AND PRACTICE OF MEDICINE.

R. C. M. PAGE, M.D., IN THE CHAIR.

Stated Meeting, April 16, 1889.

DR. F. W. JACKSON read a paper on

THE SIGNIFICANCE OF THE CREPITANT RÂLE.

Not long since, he said, a fellow-practitioner had remarked to him in regard to the actual significance of the crepitant râle that it only means pneumonia. This was the position practically taken by the late Dr. Austin Flint, who in his *Manual of Auscultation and Percussion*, said: "The crepitant râle is the diagnostic sign of pneumonia. It very rarely occurs in any other pathological condition. Of all respiratory signs this is the most entitled to be called pathognomonic." Dr. Jackson contended that this sign alone is not diagnostic of pneumonia, and that it is simply a sign of pleuritic changes or inflammation, and perhaps of other conditions of the lung as well.

Nearly all writers practically followed the teachings of Laennec or Walshe. He quoted the description of Laennec, in which he speaks of the crepitant râle as occurring in the pulmonary tissue and carrying with it a well-marked sensation of moisture. On the other hand, Walshe had said: "Dryness is one of the best marked acoustic properties of true crepitation; the sensation is not that of bubbles bursting, but rather that of a delicate tissue undergoing minutest ruptures with a crackling noise at many points simultaneously."

As regards the mechanism of the crepitant râle the three leading theories were:

(1) That of Laennec, according to which it is due to the bursting of fine bubbles of air through a viscid fluid in the air vesicles or alveolar passages of the lung.

(2) That favored by Walshe, that the sound is due to

forcible distention of the air vesicles, whose walls are rendered stiff by a glutinous exudation.

(3) That advocated by Dr. James R. Leaming, that the sound is produced by the rubbing together of the two surfaces of an inflamed pleura which is coated with fibrin.

All the older writers and most of the modern European ones favored the intra-pulmonary origin of the râle, while many of the more recent writers and teachers, in New York, at least, ascribed it to pleuritic exudation. Nearly all modern writers agreed, however, that it is not pathognomonic of pneumonia.

The exact study of the phenomena of râles demands that the sound shall have been heard at the shortest possible period before death, its position on the chest wall and acoustic characters carefully noted, and then that the lungs and pleura be subjected to a critical post-mortem examination with reference to these data. In the cases thus far studied in this way by him he has found that where a fine râle was heard on inspiration some pleural changes were commonly noted at or near the site of the râle, but not always of such a character as to be convincing. In an extended clinical experience, a point of view from which he could speak with more confidence, he said that he had noted some differences from the rules laid down in the text-books. Thus, the crepitant râle was not always persistent, (sometimes disappearing and reappearing alternately in a short space of time), and the extremely fine, extremely dry sound occurring in a great number of crackles was found to be a rare form of crepitant râle, whether associated with pneumonia or any other pathological condition. Of the brilliant, explosive, abundantly crackling type of râle, that which is slightly moist and a trifle more coarse in quality seemed to him to be far more common, and he has frequently observed it in acute lobar pneumonia, acute dry pleurisy, and phthisis, and less frequently in broncho-pneumonia.

He has been struck with the number of patients who apply for treatment whose chief or only complaint has been of pain in the chest, and in whom careful examination revealed as physical signs a little dulness and a variable number of fine râles, either crepitant or subcrepitant in character. These sounds are superficial, localized in a small area, and increased by cough or deep inspiration, and so common has he found this condition, which he regards as due either to old or recent fibrin on the pleura, or to pleuritic adhesions, that he rarely makes the diagnosis of intercostal neuralgia or muscular rheumatism. Râles at the apices of the lung, if old pleurisy be excluded, he commonly finds to indicate phthisis, and refers to a localized pleurisy. While it might be urged that these sounds were not crepitant râles, they corresponded in everything but the element of a "shower of crackles" to the definition, and they certainly constituted a very fine râle heard on inspiration. Dr. Jackson said he had sometimes heard the crepitant râle present during the second stage of pneumonia, though the number of crackles was much less than in the first stage, and in some instances it required strained attention to hear it. He has always regarded the râle of œdema of the lung as a subcrepitant râle of a peculiarly liquid character. The conclusions which he drew from his study of this subject are:

1. The crepitant râle is not pathognomonic of pneumonia.
2. It is heard also in dry pleurisy, in broncho-pneumonia, and in phthisis.
3. There is a strong probability that it is almost always due to pleuritic inflammation.
4. The question as to whether it is heard also in pulmonary oedema and pulmonary apoplexy is unsettled.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, April 2, 1889.

THE PRESIDENT, GEORGE W. JACOBY, M.D.,
IN THE CHAIR.

The first order of business was the

ELECTION OF OFFICERS FOR THE ENSUING YEAR.

The following were chosen:

President.—George W. Jacoby, M.D.

Vice-Presidents.—W. R. Birdsall, M.D., and C. L. Dana, M.D.

Recording Secretary.—Frederick Peterson, M.D.

Corresponding Secretary.—E. D. Fisher, M.D.

Treasurer.—G. M. Hammond, M.D.

Councillors.—Drs. E. C. Seguin, M. D. Field, L. C. Gray, B. Sachs, and M. A. Starr.

DR. C. L. DANA then presented for Dr. J. W. S. Gouley a specimen of the spine and spinal cord in a case of

FRACTURE OF THE BODY OF THE TWELFTH DORSAL VERTEBRA, WITH COMPRESSION OF THE CORD.

The case was of especial interest in connection with the subject of spinal surgery, and of operative interference in cases of fracture and paraplegia. The man, aged twenty, fell, on April 19, 1887, through a floor, ten feet, striking on the abdomen and then turning on the back. Complete motor and sensory paraplegia, with involvement of the sphincters, at once set in. When examined next day by Dr. Gouley, at Bellevue Hospital, the lower limbs were motionless, and there was total anaesthesia up to Poupert's ligament on the left side, and half way up the thigh on the right. The feces came away involuntarily, and the urine had to be drawn. There was no record of fever or pain, except a little of the latter in the back. The patient's condition remained without much change, except that the legs became atrophied and the reflexes lost, for two years, until his death in February, 1889. The autopsy showed fracture of the body of the twelfth dorsal vertebra, and pushing forward of the fragment, reducing the size of the canal to three millimetres, and cutting the cord almost in two. The cord was disorganized at its lower extremity, and secondary degenerations were present, which would be studied later.

DR. PHILIP C. KNAPP, of Boston, then reported

A CASE OF TUMOR OF THE BRAIN; REMOVAL; DEATH.

The patient was a man, aged thirty-two, a florist, with a good personal and family history. In the summer of 1886 he had some nausea and vomiting, and the next winter his hand began to feel stiff. In March, 1887, he had a convulsion, and about the same time he lost power in the left hand. Since that time he had had repeated convulsions, in many of which the left hand was first affected, and a left hemiplegia with contracture. Vision

had steadily failed, the mental powers had declined, he had headache, vertigo, nausea, and vomiting. Physical examination showed tactile and thermal anaesthesia on the left side, most marked in the left forearm; loss of muscular sense on that side; double optic neuritis; paralysis with contracture; diminished cutaneous and exaggerated tendon reflexes on the paralyzed side. He was admitted to Boston City Hospital December 17, 1888, and on the 28th a tumor was removed by Dr. E. H. Bradford. The tumor was a tubercle, weighing thirty-five grammes, and bacilli were found in it under the microscope. It was subcortical, and situated in the ascending frontal and parietal convolutions of the right hemisphere, about opposite the second frontal convolution, extending downward and backward into the inferior parietal lobule. The patient died of shock in three-quarters of an hour. There was no autopsy. The localizing symptoms were the convulsions, paralysis, and anaesthesia. The proportion of tumors accessible to the surgeon was regarded, on comparison of statistics, as about five to seven per cent. Fifteen cases had thus far been reported in which the tumor had been removed, and eight recovered from the operation. Four cases of operation for cerebral cysts were cited, and four cases where the tumor was not found at the operation, but was discovered later at the autopsy. Some measurements on skulls and heads were given, showing the inaccuracy of Broca's method of cranio-cerebral topography.

DR. DANA said that neurologists should feel congratulated in that their part in Dr. Knapp's case turned out so correctly and satisfactorily. He thought this case tended to confirm the view that the motor areas represent also to a considerable extent cutaneous sensation. Dr. Knapp's statistics showed that operations have been quite successful, yet he had made them too flattering. The mortality is somewhat larger. He thought, as regards cerebral surgery, that surgeons have not yet reached the degree of perfection in technique that is necessary. The length of time of the operation should be reduced, and hemorrhage more carefully guarded against. As to cranio-cerebral topography, no more accurate rule was needed than that of Horsley for finding the Rolandic fissure; it is more difficult to discover the fissure of Sylvius, and the rules for reaching its position on the skull are inexact.

DR. FRANK H. INGRAM presented a case of

HEMICHOREA FOLLOWING CRANIAL INJURY.

An adult man sustained, seventeen years ago, a depressed fracture of the skull in the left parieto-frontal region. After two years choreiform movements developed in the right arm, gradually extending to the right leg and right side of the neck. Dr. Ingram ascribed the hemichorea to some organic lesion over the motor areas of the right hemisphere, indirectly traceable to the injury to the skull.

DR. BIRDSALL said that this case resembled one of his where a young man, aged fifteen, received a charge of buckshot in the head, near the angle of the jaw. Twenty or thirty buckshot were taken from the skin, and a few entered the brain. He developed in one-half hour choreiform movements on one side, but there was also slight paresis of the same side. He had regarded this case as a post-hemiplegic chorea.

DR. STARR remarked that the movements in this man,

as far as the right side was concerned, were almost precisely like those of case of paramyoclonus multiplex, which he had reported some time ago. There were the same violence and irregularity.

DR. SACHS thought there could be no injury to motor areas in Dr. Ingram's case, because, instead of any paresis there was actually very great strength on the choreic side. He believed it to be a functional neurosis and not organic.

DR. STARR called the attention of the last speaker to the fact that we may have hemiathetosis without paresis, although an organic lesion may be discovered post-mortem. He referred to two cases, one of his own and one at Charity Hospital, in both of which the strength was perfect on the affected side.

DR. FIELD stated that the case mentioned by Dr. Starr, at Charity Hospital, had recently cured herself by prayer, and was a case of hysteria. This was the second time prayer had caused cessation of the athetoid movements in her case.

DR. W. M. LESZYNSKY then presented a case of

HEMORRHAGE INTO THE CERVICAL REGION OF THE SPINAL CORD.

J. B., aged nineteen years, clerk, sixteen months ago wrestled violently with a room-mate, was exhausted, lay down and slept one-half hour. He awoke with a dull pain between the shoulders and wrist-drop on both sides. In twenty minutes all four extremities became paralyzed. During the first week there was occasional loss of control of sphincters. In three months was improved so that he could walk without assistance, the left hand and arm, however, being decidedly paretic. At present there is partial paralysis of the left cervical sympathetic, producing contracted pupil and increase in surface temperature; paralysis and atrophy of muscles of left hand with degenerative reaction; thenar group of right hand also atrophied; both hands cyanotic; no sensory disturbance; tendon jerks in arm increased; also a few changes in lower extremities. He thought the lesion to be intra-medullary hemorrhage into the lower cervical segment of the spinal cord, followed by transverse myelitis.

DR. STARR thought that the diagnosis made by Dr. Leszynsky was defensible. The loss of pain and temperature sense was a very interesting point in the case. The literature of syringomyelia shows that lesion of the gray matter of the cord cuts off the pain and temperature tracts below the lesion.

CORRESPONDENCE.

PLATE MATERIAL FOR INTESTINAL SURGERY.

To the Editor of THE MEDICAL NEWS,

SIR: I noticed your editorial in this week's issue and have also read the report of Dr. Abbe's case in the *New York Medical Journal*.

All the plates used by Dr. Senn were made in this institution, and we, from the first, felt the necessity of a "plate material" which could be extemporized or prepared hurriedly by the surgeon when called to the country, say to a strangulated hernia where gangrene had set in, or a case of gunshot wound, or any of the thousand

and one emergencies which may occur at any time. If Dr. Abbe felt the necessity of a substitute for the bone plates, how much more so must we have felt this need in Dr. Senn's series of experiments. We have tried almost every imaginable substance, but finally cried "eureka" when we used plates made of cartilage from the scapula of a young steer. This substance can be carried in segments and easily and quickly cut down to any size. We have a specimen of intestine taken from a large dog, where the intestine had been severed in four places and again united by four sets of cartilage plates (at one operation) with perfect union at each point of apposition. It would seem to me that the catgut rings as made by Dr. Abbe are not so good as plates, because there is not so large a surface of the intestine held in apposition. Will not some one undertake a series of experiments to find the best material for plates which can be obtained or prepared on short notice? Most respectfully yours,

M. E. CONNELL, M.D.

WAUWATOSA, Wis., April 15, 1889.

THE MEDICAL EXAMINERS' BILL AND A FOUR-YEARS' COURSE.

To the Editor of THE MEDICAL NEWS,

SIR: The following is forwarded to you for publication. Yours,

W. W. KEEN.

APRIL 4, 1889.

TO WILLIAM PEPPER, M.D.,

Chairman Com. Med. Examiners' Bill.

DEAR DOCTOR: The Faculty of the Woman's Medical College of Pennsylvania, being deeply interested in the advancement of medical education, have watched closely the attempt to secure the passage of a law establishing a State Board of Examiners, and have noted the amendment proposed by your Committee.

This College, as long ago as 1869 (see announcement for that year), introduced an elective three years' graded course of instruction, which was made *obligatory* in 1881. A *four years' course* has also for some years been provided by the College, and, as a matter of fact, elected by about *thirty per cent.* of the students; and the Faculty have it in contemplation to recommend, at an early date, to the Board of Corporators of this College, that a four years' course be made essential for graduation.

In view of these facts, the Faculty are fully prepared to advocate the proposed amendment of the bill making a four years' course obligatory.

(Signed) CLARA MARSHALL, M.D.,
Dean of the Faculty.

NEWS ITEMS.

The New York Hospital Library.—This library has recently received a legacy which materially augments the value of its already remarkable collection. The late Professor T. T. Sabine left about five hundred bound volumes and two hundred and fifty pamphlets, monographs, theses, etc., to the institution. On the 4th instant word was received at the library that the late Professor John Call Dalton also had bequeathed about a hundred and fifty volumes to the library, consisting mostly of works on physiology. They thus supplement admirably the collection of volumes given by Professor Sabine.

The library, as a whole, has become so valuable that the steps recently taken by the governors of the hospital to provide for its establishment in a new fire-proof build-

ing to be constructed on the adjacent lot on the east side of the one it now occupies on West Sixteenth Street will be watched with solicitude by all interested in the safety of this valuable collection.—*New York Medical Journal*, April 13, 1889.

The Results of State Medical Examinations in Minnesota.—Since its establishment the Minnesota Board of Medical Examiners have had eighty-six applications for examination for a license to practise medicine. Of these, six were refused admission because they had not taken three full courses of lectures of six months each. Of the eighty entering the examination, fifty-one were found able to pass the same. Twenty-nine were rejected as not possessing the knowledge of medicine required by the Board. Of those passing, forty-nine are regular, and two are homœopathic. Of those rejected, eighteen were regulars, eight homœopaths, and three eclectics. Students from two-term medical colleges cannot even get a chance to be examined in Minnesota.—*American Lancet*, April, 1889.

Curious Injury to the Brain.—An inquest was held last week by the Coroner for Central Middlesex on the body of a man who died in consequence of an injury inflicted by a poke with an umbrella. The ferrule was thrust into the left eye of the deceased, who promptly lost consciousness, and was conveyed to the police station under the impression that he was suffering from the effects of drink. Early the next morning he was liberated, and went home, but severe symptoms of cerebral injury set in, and he died in the course of a few hours. At the post-mortem examination it was found that the point of the umbrella had broken through the thin plate of bone forming the roof of the orbit, and had penetrated the brain substance. A number of cases are now on record in which this particular injury has caused death, and it is curious to note that in most of them the advent of serious symptoms was delayed for some hours, even when the laceration of brain substance has been very extensive.

In a case which was admitted some years since into the Westminster Hospital, a stick had penetrated four inches without leaving any mark of external injury beyond some slight conjunctival ecchymosis, and in this case, too, the nature of the injury was only revealed on the post-mortem table. It would hardly be fair to expect the police to diagnose an injury which, in the absence of a clear history of what had happened, would be very likely to escape recognition by skilled observers.—*Medical Press*, April 3, 1889.

NOTES AND QUERIES.

POLYDACTYLISM.

To the Editor of THE MEDICAL NEWS,

SIR: I desire to report the following case occurring in my practice, being another exception to Professor Brook's theory of polydactylism:

Female, white, aged ten years. Six fingers on right hand, six toes on right foot. Extra members articulating with metacarpal and metatarsal bones respectively. Well developed and moved with ease. Family history traced for three generations, and no deformity of any kind existed.

The above abnormality occurs very seldom in the white race; is very frequent among the lower African tribes.

It seems very strange that the origin of this excessive development should have been ascribed to the male by any one. Especially is it so in the light of the literature extant on the subject of the variation. I have not examined Professor Brook's observations or statistics on the subject, but from the many cases reported by men eminent in the profession, the theory seems to be without foundation.

Very respectfully,

C. N. KAVANAUGH.

GAINESVILLE, TEXAS, April 19, 1889.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF THE MEDICAL CORPS OF THE U. S. NAVY, FOR THE TWO WEEKS ENDING APRIL 27, 1889.

BYRNES, JAMES C., *Passed Assistant Surgeon*.—Detached from special duty at Norfolk, Virginia, and ordered to the "Chicago."

HEFFENGER, A. C., *Passed Assistant Surgeon*.—Granted leave of absence for six months, with permission to leave the United States.

LEACH, PHILIP, *Passed Assistant Surgeon*.—Leave of absence extended six months, with permission to remain abroad.

LOWNDES, C. H. T., *Assistant Surgeon*.—Ordered to the Naval Academy, Annapolis, Maryland.

MCCORMICK, A. M. D., *Assistant Surgeon*.—Detached from the "Vermont," and ordered to the "Chicago."

WILSON, GEORGE B., *Assistant Surgeon*.—Detached from the Naval Hospital, Mare Island, and ordered to the "Iroquois."

CORDEIRO, F. J. B., *Passed Assistant Surgeon*.—Detached from the "Vandalia," and ordered to the Naval Hospital, Mare Island, California.

BRANSFORD, JOHN F., *Surgeon*.—Ordered to the "Iroquois."

STITT, EDWARD R., *Assistant Surgeon*.—Ordered to the Bureau of Medicine and Surgery, Washington, D. C.

FEREBER, N. M., *Surgeon*.—Ordered to the Naval Academy, Annapolis, Maryland, for examination of candidates for admission to the Academy.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM APRIL 23 TO APRIL 29, 1889.

By direction of the Secretary of War, the retirement from active service, this date, by operation of law, of DAVID L. MAGRUDER, *Colonel and Surgeon*, under the provisions of the Act of Congress approved June 30, 1882, is announced.—Par. 4, S. O. 94, A. G. O., April 23, 1889.

VOLLUM, EDWARD P., *Colonel and Surgeon*.—Promoted to Surgeon, with the rank of Colonel, from April 23, 1889.

WRIGHT, JOSEPH P., *Lieutenant-Colonel and Surgeon*.—Promoted to Surgeon, with the rank of Lieutenant-Colonel, from April 23, 1889.

WOODRUFF, EZRA, *Major and Surgeon*.—Promoted to Surgeon, with the rank of Major, from April 23, 1889.

Based on surgeon's certificate of disability, leave of absence for one month, with permission to leave the limits of the Department, is granted to Surgeon W. H. FORWOOD, Medical Department, Fort Snelling, Minnesota.—Par. 1, S. O. 35, *Headquarters Department of Dakota, St. Paul, Minnesota*, April 8, 1889.

HAVARD, VALERY, *Assistant Surgeon*.—Relieved from duty at Fort A. Lincoln, Dakota, and ordered to Fort Buford, Dakota.—Par. 29, S. O. 95, A. G. O., April 24, 1889.

CRAMPTON, L. W., *Assistant Surgeon*.—Relieved from duty at Fort Bridger, Wyoming Territory, and ordered to Fort Lyon, Colorado.—Par. 29, S. O. 95, A. G. O., April 24, 1889.

SPENCER, W. G., *Assistant Surgeon*.—Relieved from duty at Fort Yates, Dakota, and ordered to Fort Bridger, Wyoming Territory.—Par. 29, S. O. 95, A. G. O., April 24, 1889.

ROBERTSON, R. L., *Assistant Surgeon*.—Relieved from duty at Fort Buford, Dakota, and ordered to Fort A. Lincoln.—Par. 29, S. O. 95, A. G. O., April 24, 1889.

By direction of the Secretary of War, EZRA WOODRUFF, *Captain and Assistant Surgeon*, is relieved from duty at Fort Missoula, Montana Territory, and will report in person to the commanding officer at Fort Monroe, Va., for temporary duty at that post.—Par. 14, S. O. 92, A. G. O., April 20, 1889.

By direction of the Secretary of War, leave of absence for four months, on surgeon's certificate of disability, with permission to leave the Department of Texas, is granted to FREEMAN V. WALKER, *First Lieutenant and Assistant Surgeon*.—Par. 12, S. O. 92, A. G. O., April 20, 1889.